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PANASONIC CT-30WX52 SERVICE MANUAL

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Serviceman Mode (Electronic Controls)

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Order No. ITD0205011C1

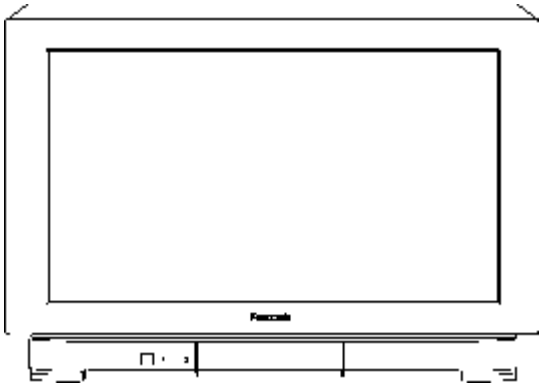
B5

Service Manual

Wide Screen TV

CT-30WX52 / CT-34WX52

DX3PW Chassis



SPECIFICATIONS

Specifications

Power Source	AC120V, 60 Hz
Power Consumption:	
Average use 170W (Maximum Current: 3.6A)	
Stand-by condition: 0.2W	
CRT	
CT-30WX52: 30 inch, 16:9 aspect ratio	
CT-34WX52: 34 inch, 16:9 aspect ratio	
Screen size	
CT-30WX52:	
25.95” (659.1mm)(W)x14.59” (370.7mm)(H)x29.77”(756.2mm)(D)	
CT-34WX52:	
29.36” (745.9mm)(W)x16.5” (419.5mm)(H)x33.68”(855.7mm)(D)	
Dimension (WxDxH)	
CT-30WX52:	
32.6” (827mm)x22.8” (579mm)x21.1” (535mm)	
CT-34WX52:	
36.4” (926mm)x30.6” (651mm)x23.1” (584mm)	
Weight (Mass)	
CT-30WX52: 126 lbs (57kg) Net	
CT-34WX52: 172 lbs (78kg) Net	
ANODE Voltage	33.0 ±1.0kV at zero beam current
Channel Capability-181	
	VHF-12: UHF-56: Cable-125

Sound	
Speaker	**4 Speakers**
Audio out	**30W (15W+15W) (10% THD)**
Headphones	**M3 (3.5mm) Jack×1**
FEATURES	
Two screen display function	**3D Y/C FILTER**
BBE	**LINEAR PIP**
CLOSED CAPTION	**V-Chip**
Accessories Supplied	**Remote conrtol Transmitter EUR7603Z70**
	R6 (AA) Battery ×2 Size
Operating Conditions	
Temperature: 34°F - 104°F (0° - 40°C)	
Humidity: 20% -80% (non-condensing)	
Connection terminals	
AV INPUT 1-4	**VIDEO 1.0 Vp-p (75 Ω) / (Phono Jack Type) / S-VIDEO Y:1.0Vp-p (75 Ω) / (Mini DIN 4-pin) C: 0.286 Vp-p (75 Ω) / AUDIO L-R 0.5Vrms / (PhonoJack Type x 2)**
AV PROG OUT	**VIDEO 1.0Vp-p (75 Ω) (Phono Jack Type) AUDIO L-R 0.5 Vrms (Phono Jack Type x2)**
TO AUDIO AMP	**AUDIO L-R 0.5 Vrms / (Phono Jack type x2)**
COMPONENT VIDEO INPUT1-2	**Y 1.0 Vp-p (including synchronization) / P_B /P_R ± 0.35 Vp-p / AUDIO L-R 0.5 Vrms / (Phono Jack Type x 2)**

Design and Specifications are subject to change without notice.

Weight and Dimensions shown are approximate.

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic

1. Safety Precautions

1.1. General Guidelines

1. **It is advisable to insert an isolation transformer in the AC power line before servicing a hot chassis.**
2. **When servicing, observe the original lead dress, especially the lead dress in the high voltage circuits. If a short circuit is found,**

replace all parts which have been overheated or damaged by the short circuit.

3. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers, shields, and isolation R-C combinations, are properly installed.
4. Before switching the power on, measure the resistance between B + line and cold side chassis ground. Connect the "-" side of an ohmmeter to the B+ line, and the "+" side to chassis ground. Each line must have moreresistance value than the specified one as follows:

B+ line	SPECIFICATION
MAN 12V (TPA6)	12.0V±0.5V
MAIN 9V (TPA7)	9.0V±0.5V
MAIN 5V (TPA8)	5.0V±0.3V
GC 2.5V (TPA9)	2.5V±0.2V
STBY 3.3V (TPA16)	3.3V±0.2V
STBY 7V (TPA9)	7.0V±0.5V
+B2 (TPD144)	144.0V±1.5V
25V (TPD250)	27.5V±2.0V
15V (TPD150)	15.7V±1.5V
-15V (TPD151)	-16.0V±1.5V
SOUND+ (TPD160)	16.5V±1.0V
SOUND- (TPD161)	-16.5V±1.0V
220V (TPD7)	215V±5.0V

5. When the set is not used for a long period of time, unplug the AC power cord plug from the AC line outlet.
6. High voltage points, as high as 37.2 ± 1.0 kV, are present when the set is in operation. Operating the set without the rear cover involves in a dangerous electrical shock from the set power supply. Servicing must not be attempted by anyonewho is not thoroughly familiar with the necessary precautions when working on high voltage equipment. Always discharge the anode of the picture tube to chassis ground before handling the picture tube.
7. After servicing, make the following leakage current checks to prevent the customer from dangerous electrical shock.

1.2. Leakage Current Cold Check

1. Unplug the AC power cord and short between the two prongs of

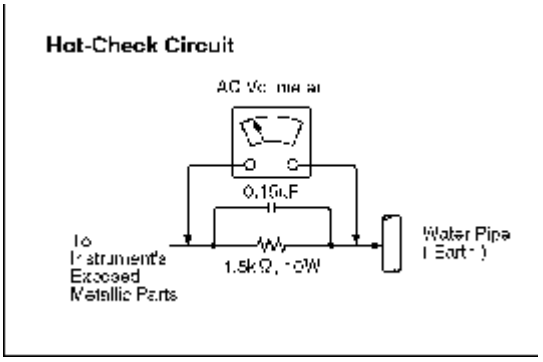
the AC plug with a jumper wire.

2. Set the power switch of this set to ON position.
3. Measure the resistance value with an ohmmeter between the shorted AC plug and each exposed metallic part of the set cabinet such as screwheads, connectors, and control shafts. When the exposed metallic part has a return path to the chassis,the reading should be more than 1 M Ω . / When the exposed metal part does not have a return path to the chassis, the reading must be infinity.

1.3. Leakage Current Hot Check (See Fig.1)

1. Plug the AC power cord directly into the AC line outlet. Do not use an isolation transformer for this check.
2. Connect a 1.5k Ω , 10W resistor, in parallel with a 0.15 μ F capacitor between each exposed metallic part of the set and an earth ground such as a water pipe.
3. Use a high impedance AC voltage meter to measure the voltage across the resistor.
4. Measure the voltage at each exposed metallic part.
5. Reverse the AC plug inserting direction at the AC line outlet and repeat each of the above measurements.
6. The voltage at any point must be less than 0.75Vrms.
7. A leakage current tester (Symptom Model 229 or the equivalent) may be used to make the hot checks. In this case, the current must be less than 500 μ A.
8. If the reading is more than the above value, the set must be repaired and rechecked before it is returned to the customer because of a possibility of an electrical shock.

Fig. 1



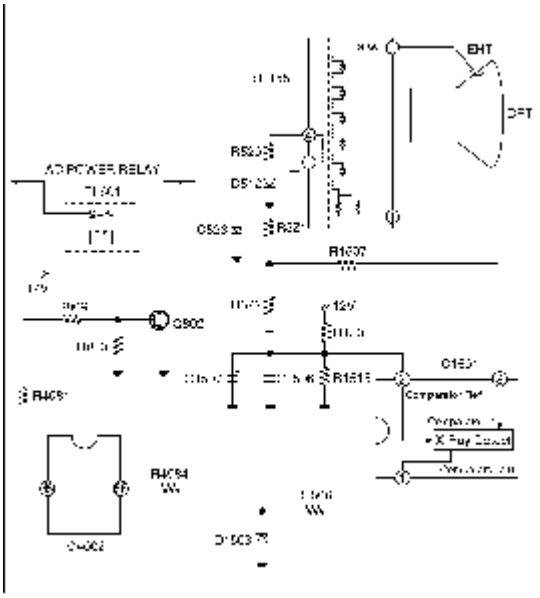
1.4. X-Radiation

Warning:

1. **The potential sources of X-Radiation in the monitor set are the high voltage section and picture tube.**
2. **When using a picture tube test jig for service, make sure that jig is capable of handling 37.2kV without causing X-Radiation.**
3. **For continued X-radiation protection, in case that at least one of the components listed below is replaced, follow the adjustment procedure of the high voltage circuit. Precise adjustment is necessary for Serviceman Mode to protect X-Radiation. Refer to "High Voltage and X-Radiation Protective Circuit Adjustment section".**
   T551, IC1501, IC4002, D512, D1503, R520, R521, R522, R809, R810, R1506, R4081, R4084, R1505, R1515 C481, C528, C1506, C1507, RL801

1.5. Hold Down or Safety Circuit Information

To monitor the high voltage, the positive DC voltage from the cathode D512 is applied through R1507 and other resistors to pin 3 of IC1501, which is the input terminal of the X-ray Protection Circuit. The voltage at pin 2 of IC1501 is 5.90 ± 0.03voltage. Under normal conditions this voltage is insufficient to activate the X-ray Protection Circuit.
If the voltage at pin 3 of IC1501 increases over the voltage at pin 2 of IC1501 increases and causes the X-ray Protection to activate. Then it causes the shut down works.
In the process described above, the voltage at pin 3 of IC1501 is compared with the voltage at pin 2 of IC1501.if excessive beam current is drawn, the voltage at oin 3 of IC1501 increases. When the voltage at pin 3 of IC1501 over the voltage atpin 2 of IC1501, the voltage at pin 1 of IC1501 becomes "high" and feeds into pin 45 of micro-controller IC4002 through R4084.The micro-controller then turns off Q802, causes the AC power relay RL801 to unlatch and turns off the receiver.

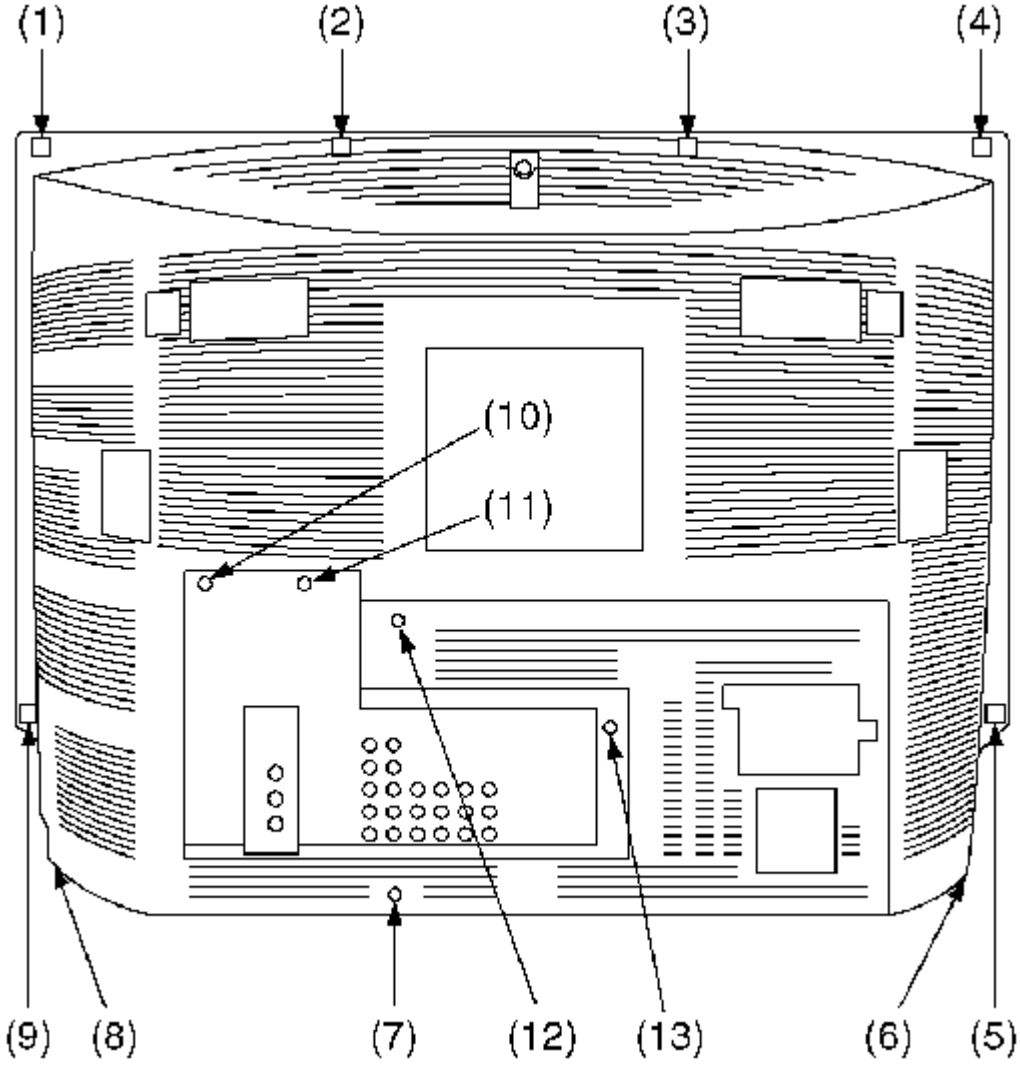


2. Service Hints

2.1. Before servicing

1. Remove the screws fixing the rear cover (13 pcs.: Refer to Fig. 1).

Fig. 1 Position of the screws fixing the rear cover

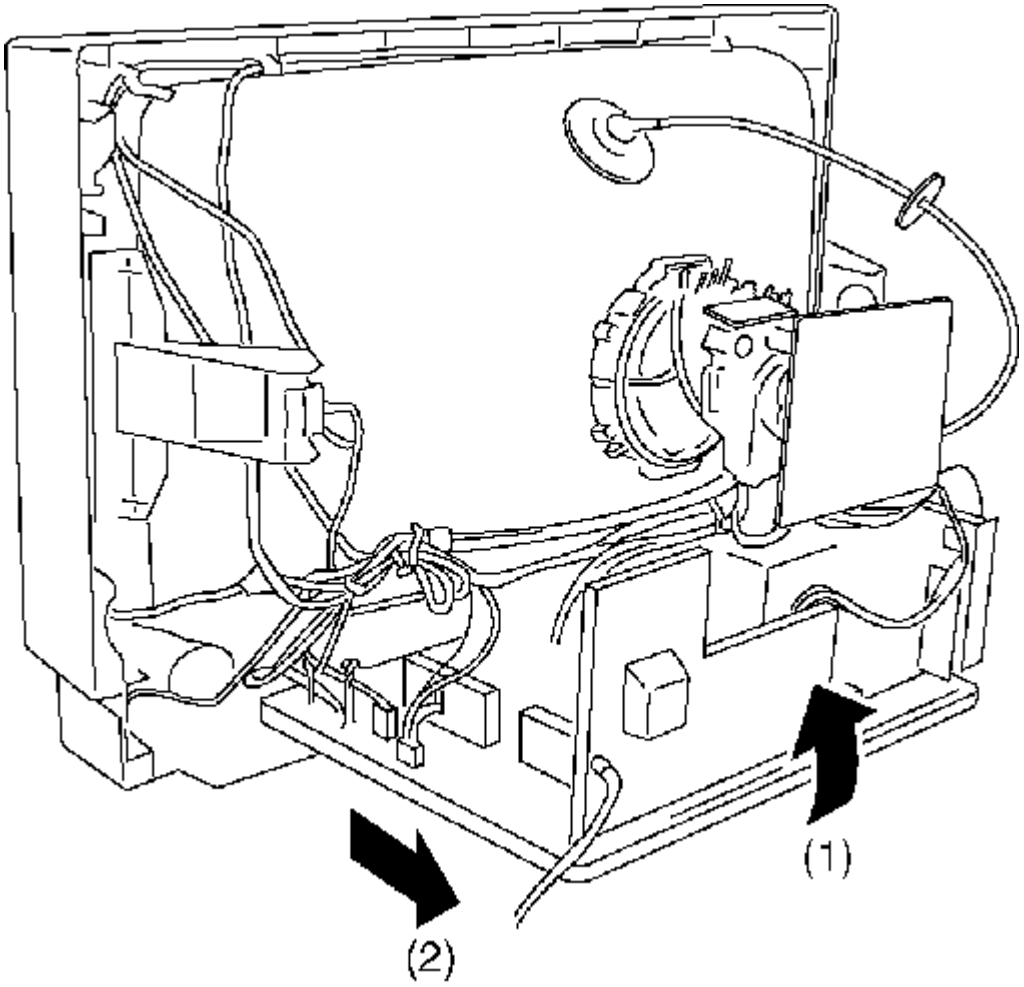


2. Remove the rear cover by raising the chassis a little and pulling to the rear . (Refer to Fig. 2.)

- At this time, disconnect the coupler P11, the ring clamper, etc. as required to facilitate the pulling out of the chassis.

- After completion of servicing, any disconnected couplers and clampers must be restored to their original condition.

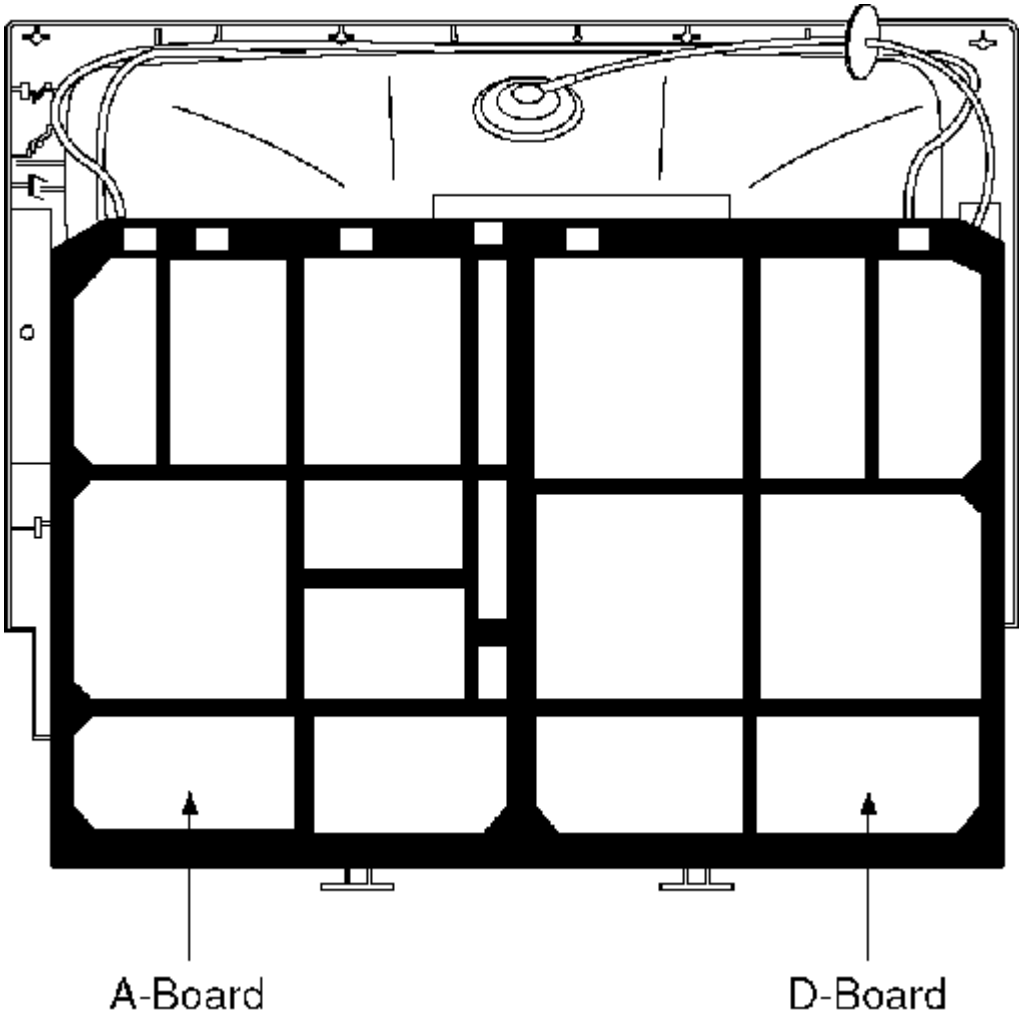
Fig. 2 How to tilt the chassis



2.2. In regard to inspection of A-Board and D-Board

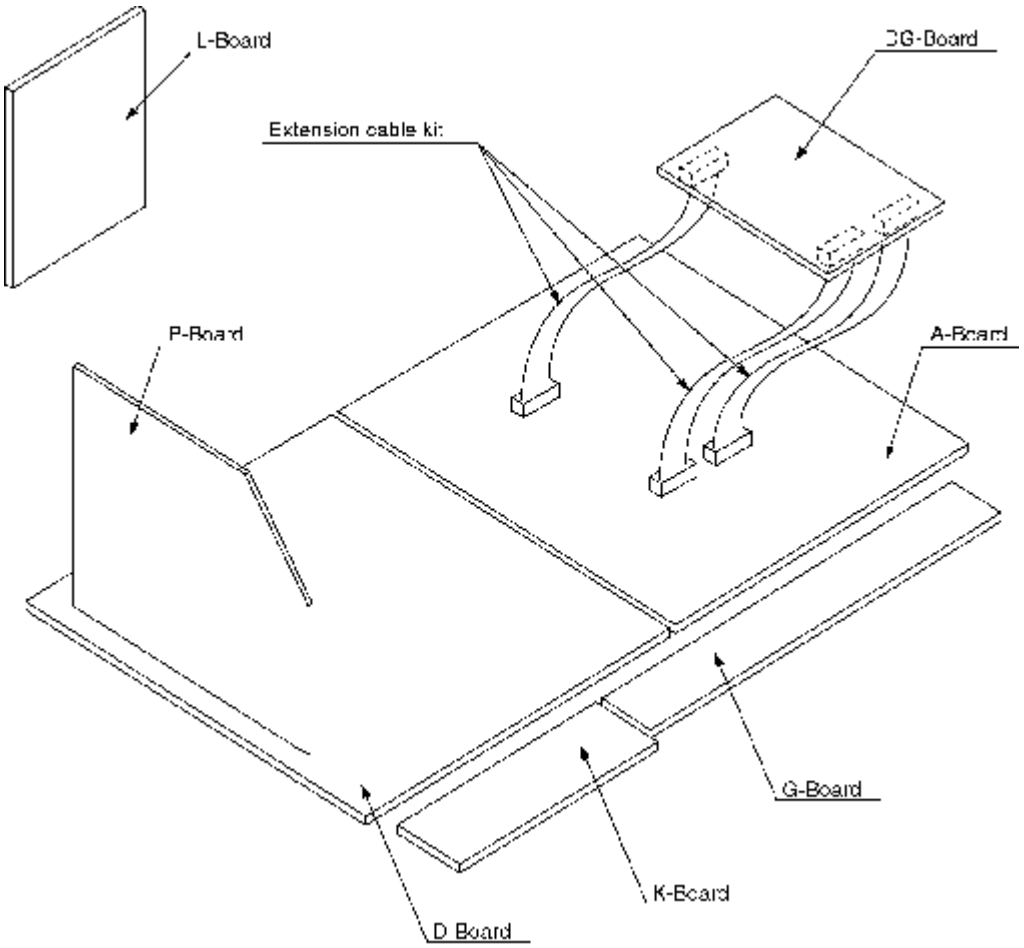
- The A-Board and D-Board can be inspected from the pattern side when the chassis is pulled out and tilted up. (Refer to Fig. 3.)
- At this time, disconnect the coupler, the clamp, etc. as required to facilitate tilting of the chassis.
- When tilting the chassis, pay sufficient attention to the L-Board at the neck of the picture tube

Fig. 3 Inspection of the A-Board and D-Board



2.3. Service position for DG-Board

Note:
Extension cable kit for DG-Board is supplied as service fixtures and tools.
Parts No. TZSC07038



3. About lead free solder (PbF)

Note: Lead is listed as (Pb) in the periodic table of elements.
In the information below, Pb will refer to Lead solder, and PbF will refer to Lead Free Solder.
The Lead Free Solder used in our manufacturing process and discussed below is (Sn+Ag+Cu).
That is Tin (Sn), Silver (Ag) and (Cu) although other types are available.
This model uses Pb Free solder in it's manufacture due to environmental conservation issues.
For service and repair work, we'd suggest the use of Pb free solder as well, although Pb solder may be used.
PCBs manufactured using lead free solder will have the PbF within a leaf Symbol

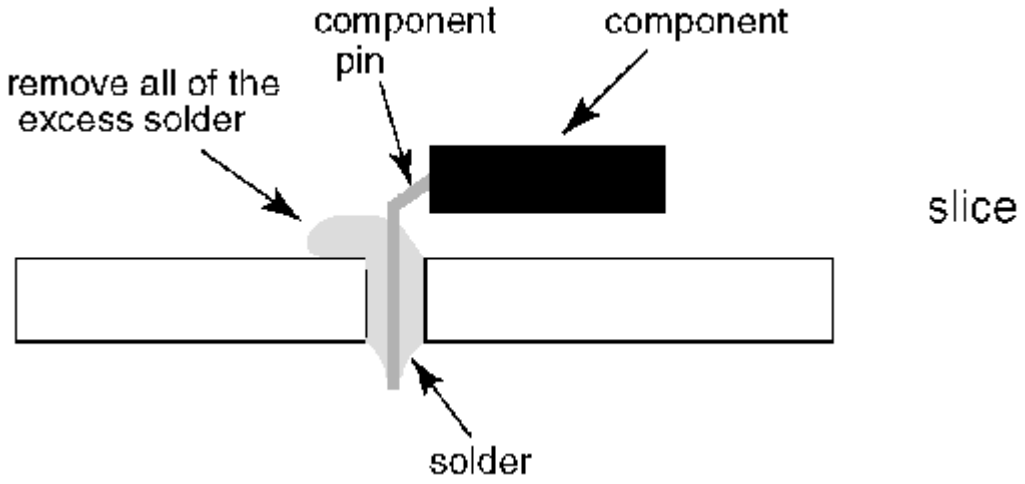
stamped on the back of PCB.

Caution

- Pb free solder has a higher melting point than standard solder. Typically the melting point is 50 ~ 70 ~F (30~40~C) higher. Please use a high temperature soldering iron and set it to 700 ± 20 ~F (370 ± 10 ~C).

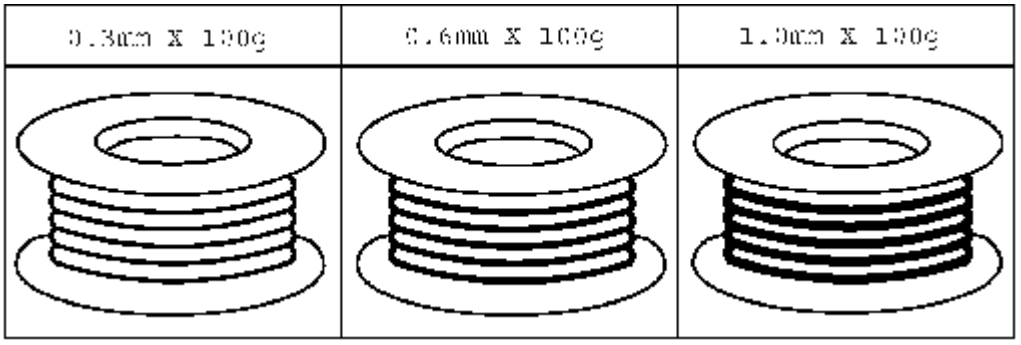
- Pb free solder will tend to splash when heated too high (about 1100 ~F or600~C).
If you must use Pb solder, please completely remove all of the Pb free solder on the pins or solder area before applying Pb solder. If this is not practical, be sure to heat the Pb free solder until it melts, before applying Pb solder.

- After applying PbF solder to double layered boards, please check the component side for excess solder which may flow onto the opposite side. (see figure below)

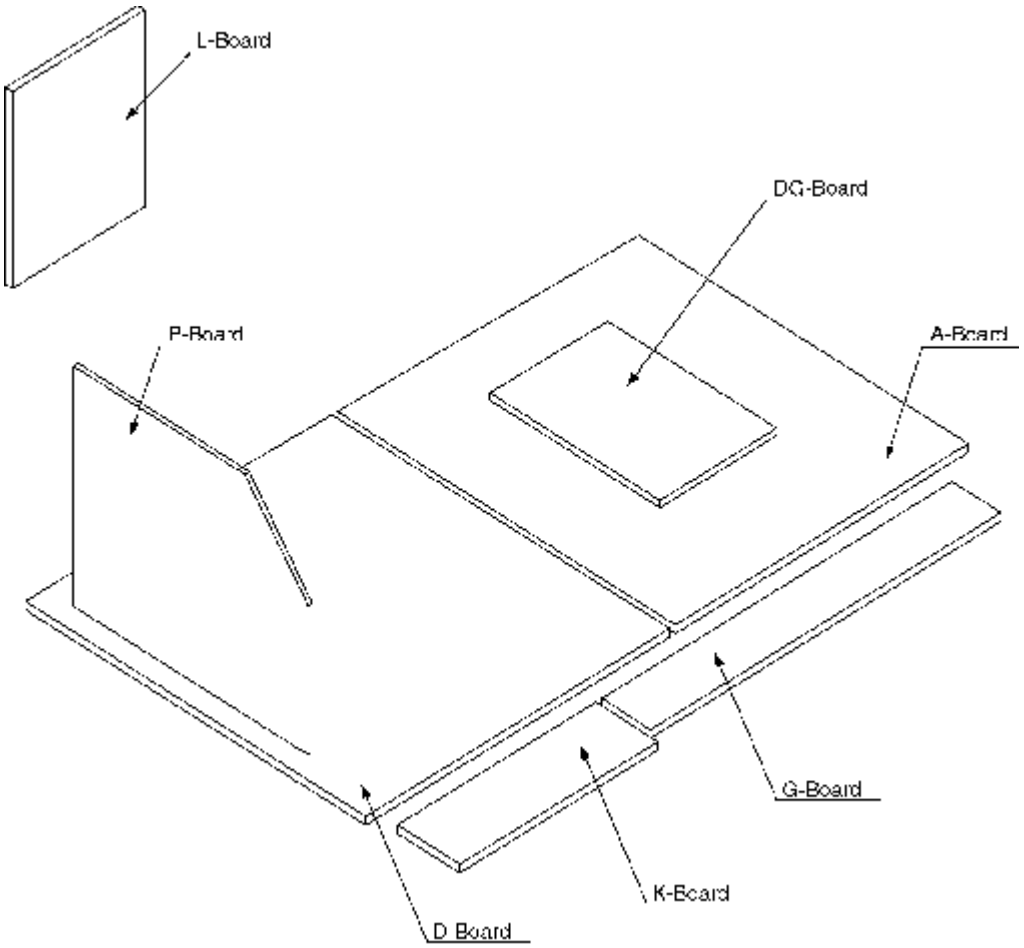


Suggested Pb free solder

There are several kinds of Pb free solder available for purchase. This product uses Sn+Ag+Cu (tin, silver, copper) solder. However, Sn+Cu (tin, copper), Sn+Zn+Bi (tin, zinc, bismuth) solder can also beused.

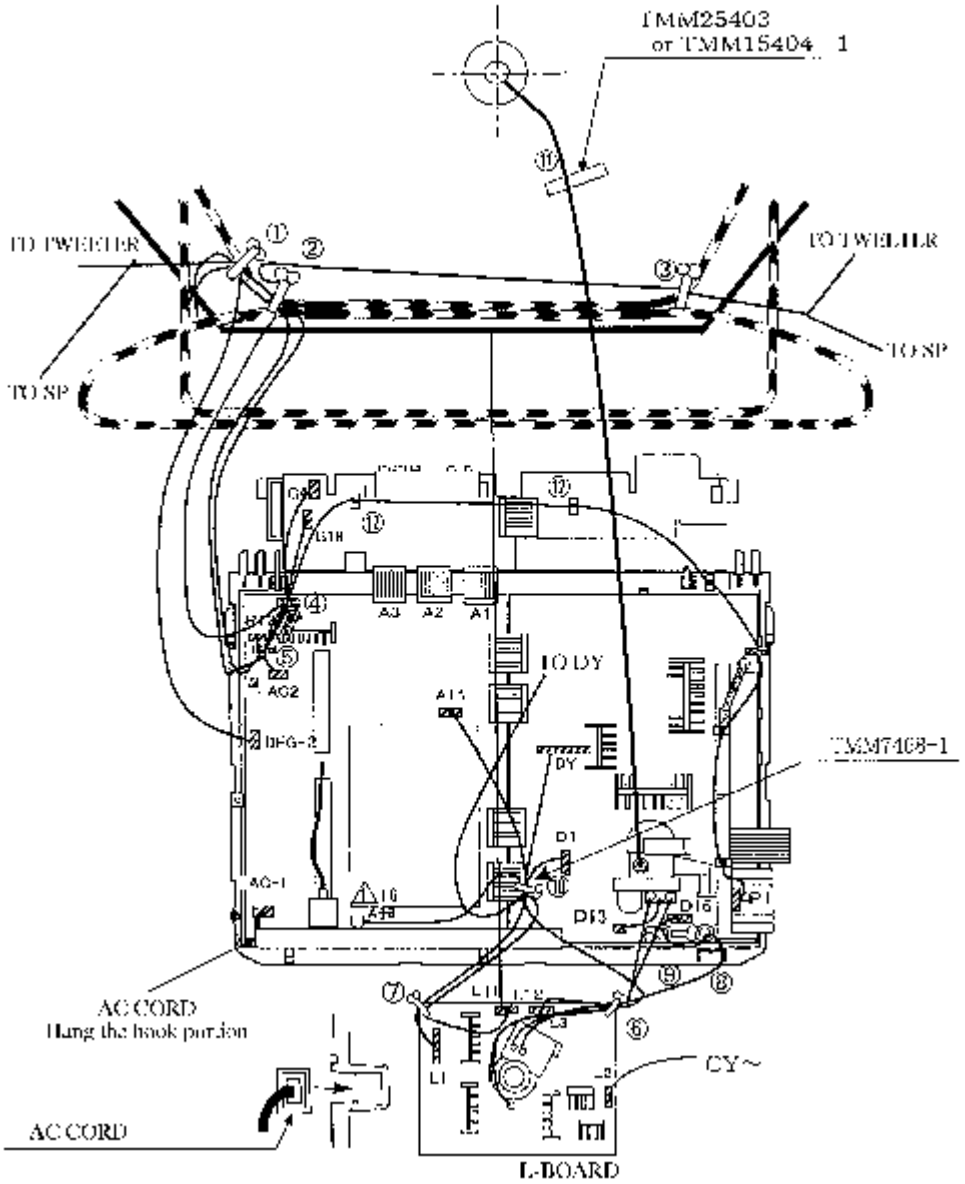


4. Chassis Board Layout



Board Name	Designation
G-Board	Front terminal
K-Board	LED/Main Power SW/RM
L-Board	CRT Drive
P-Board	AC Power
D-Board	Power Deflection
A-Board	AUDIO, AV SW
DG-Board	Digital Core, MPU

5. Location of Lead Wiring (CT-30WX52)



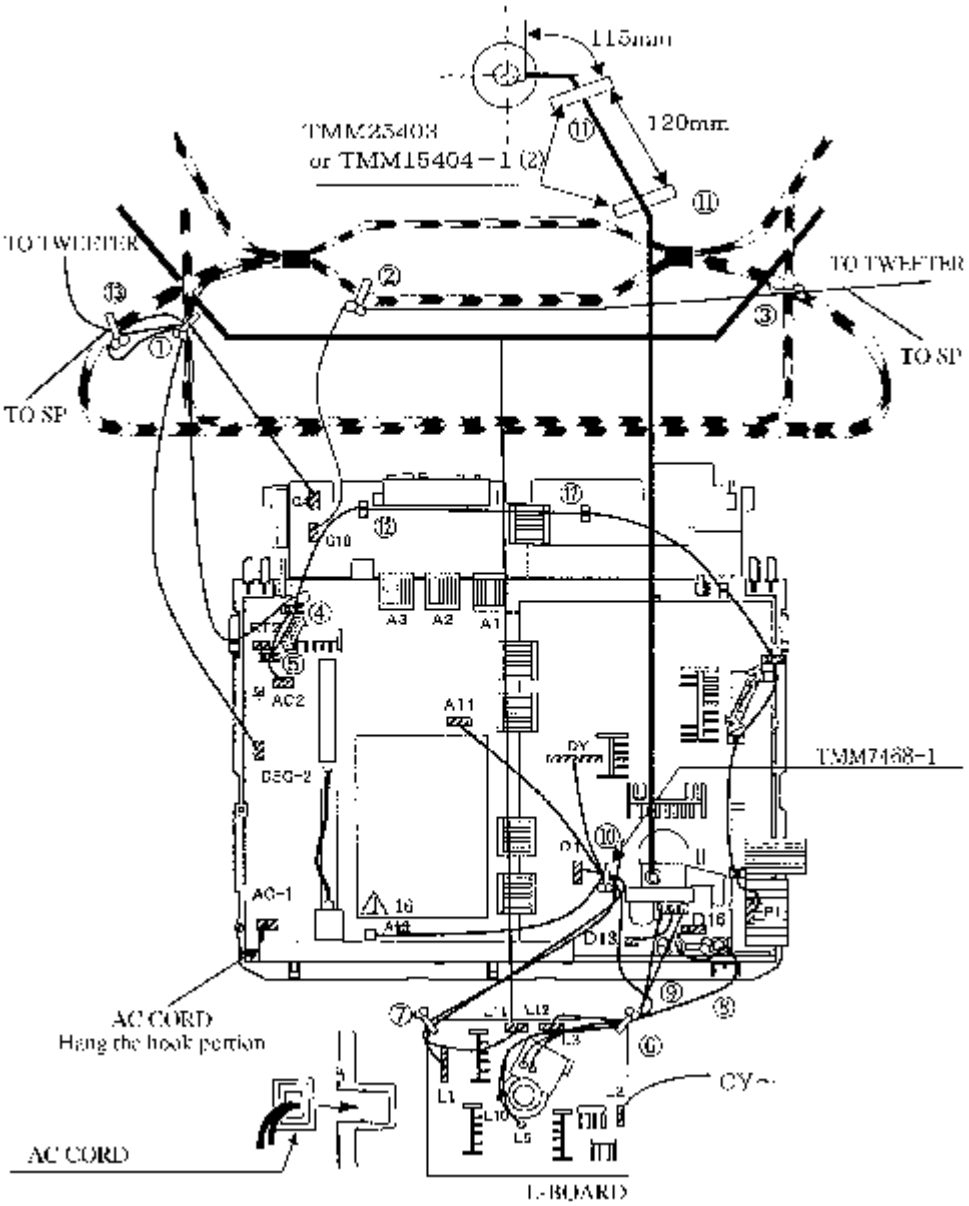
Connect Connector
DY, DEG-2, ANODE LEAD, CRT-GND (L11), CY (L2), A11, D1, AC-1,
RT2, G4, G18, Fo. Sc, D16, L12, D13

	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫×2
DY										●		
ANODE LEAD											●	
Fo. Sc						●						
I31-I 3						●				●		
I 1-A11							●			●		
P1--AC2				○	○							●
D16-L5 · L10						●		○	○			
DEG-2	●											
G4-SP(R)	●	●		●	●							
G18-SP(L)		●	●	●	●							
H19	●	●		●	●							
A13-L12							●			●		

<<CAUTION POINT>>

1. **The leads should not be too close to the anode leads. (Be separated at least 10mm.)**
2. **The anode leads should be separated at least 10mm from the CRT, Back Cover, DY, Circuit Board and so on.**
3. **The focus screen lead should not touch CY fixed screw.**
4. **The lead wires should not touch Headsink and hot parts as following.**
   DEG lead → Tuner, IC4803
   AC2 lead → Tuner, IC4803, IC2302 of heatsink
   RT2 lead → DEG pin, R801, R800
   SP lead → DEG pin, R801, R800

6. Location of Lead Wiring (CT-34WX52)



Connect Connector
DY, DEG-2, ANODE LEAD, CRT-GND (L11), CY (L2), A11, D1, AC-1,
RT2, G4, G18, Fo. Sc, D16, L12, D13

	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪x2 ⑫x2	⑬
DY										●		
ANODE LEAD											●	
Fo Sc						●						
D1-D3 L1-A11						●	●			●		
P1-AC2				○	○						●	
D16-L9 - L10							●	○	○			
G4-TWEETER(R)	●											●
G4-SP(R)	●											●
G10-SP(L)		●	●									
RT2	●											●
DEG-2	●											
A13-L12							●			●		

<<CAUTION POINT>>

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   AC2 lead → Tuner, IC4803, IC2302 of heatsink
   RT2 lead → DEG pin, R801, R800
   SP lead → DEG pin, R801, R800

7. Serviceman Mode (Electronic Controls)

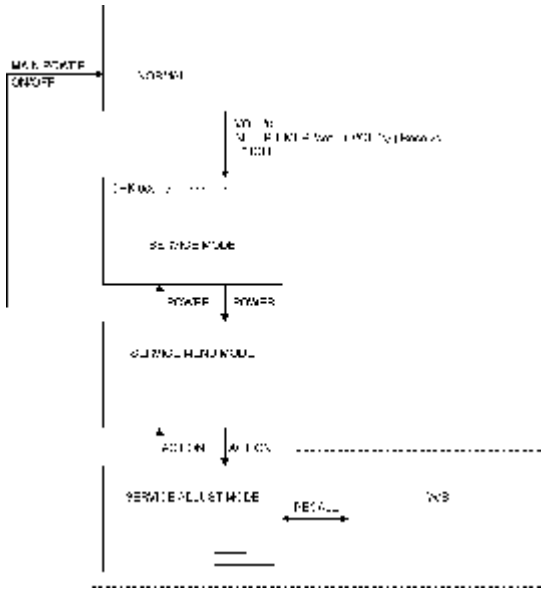
This Receiver has electronic technology using the I^2C BUS Concept. It performs as a control function and it replaces many mechanical controls. Instead of adjusting mechanical controls individually, many of the control function are now performedby using "On Screen Display Menu". (The Serviceman Adjustment Mode .)

Note

It is suggested that the technician reads all the way through and understand the following the procedure for Entering/Exiting the Serviceman Mode ; then proceed with the instructions working the Receiver. When becoming familiarwith the procedure, the Flow Chart for Serviceman Mode may be used as a quick guide.

Quick Entry to Serviceman Mode:
At times when minor adjustments need to be done to the electronic controls, the method of Entering the serviceman Mode without removal of the cabinet back is as follows using the Remote Control:

1. **Select SET-UP icon and select CABLE mode.**
2. **Select TIMER icon and set SLEEP time for 30 Min.**
3. **Press ACTION button twice to exit menus.**
4. **Tune to the Channel 124.**
5. **Adjust VOLUME to minimum (0).**
6. **Press the VOL ◀ button (decrease) on Receiver . Red "CHK" appears in upper corner.**

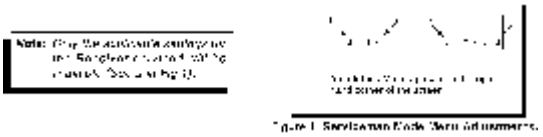


To toggle between Aging and Serviceman modes:

While the "CHK" is displayed on the left top corner of the screen, pressing the Action and the Volume up button on the Receiver simultaneously will toggle between the modes. Red "CHK" for Serviceman and yellow "CHK" forAging.

7. **Press the Power Button on the Remote Control to select one of six Serviceman Adjustment Modes.**

A. Serviceman MTS ADJUSTMENT.
B. Serviceman CLOCK ADJUSTMENT.
C. Serviceman VIDEO ADJUSTMENT.
D. Serviceman HDEF ADJUSTMENT.
E. Serviceman VDEF ADJUSTMENT.
F. Serviceman DAF ADJUSTMENT.
G. Serviceman OTHER ADJUSTMENT.



Exiting the Serviceman Mode:
Press the Power buttons on the Receiver.

For Adjustments:

1. Press Channel Up/Down on the Remote Control to select one of the available Service Adjustments (a in Fig.1).

Note:
Write Down the original value set (b in Fig.1) for each address before modifying anything. It is easy to erroneously adjust the wrong item.

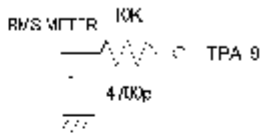
2. Press Volume Up/Down on the Remote Control to adjust the level of the selected Service Adjustment (b in Fig.1).

MAIN ITEM	SUB ITEM	ORIGINAL VALUE	EEPROM ADRESS		DEFAULT LEVEL
			SLEEVE	SUB	
MTS	MTSIN	10	3A		21
	SEPA L	10	3B		06
	SEPA H	10	3C		19
CLOCK	CLOCK	10	3D		128
VIDEO	COLOR	14	F2		19
	TINT	14	F6		88
	BRIGH	14	D4	01	FA
	CONT	14	D7		25
	B-Y_G	14	E0		3F
	CUT_G	15	0C	01	6C
	CUT_R	15	01	01	99
	CUT_B	15	13	01	A4
	BRT	14	D0		FB
	R DR	14	FB		9F
	B DR	15	00		A8
HDET	H LIN	11	0C		A7
	H POS	12	1F	00	B4
	H WID	12	B0		50
	PCC	12	AC		20
	PCCHG	12	91		1F
	PCCLG	12	96		1B
	PCCHS	12	9E		00
	PCCLS	12	9A		00
	TOPG	12	A8		4A
	BTMG	12	A3		4F
	TOPSL	12	88		03
	BTMSL	12	8C		00
	TRAP	12	BA		7F
	PARA	12	CE		08
	SIDE	12	CA		08
V-DEF	V RAS	11	10		71
	VEAMP	12	6D		D1
	V-C	12	66		20
	V-S	12	5F		29
DAF	HDAFS	11	D2	00	38
	VDAFG	12	BE		52
OTHER	VMM_G	11	15		A0
	VMM_P	11	18		F3
	HHS	11	19		CB
	EW_SW	12	7B		00
	VTOP	12	59		86
	SOSSW	11	1B		01

8. Adjustment

8.1. MTS Adjustment

8.1.1. Input level Adjustment

Instrument name	Connection	Remarks
1. Filter jig 2. 2 RF signal generator 3. RMS voltage meter 4. Measurement computer	TPA19-GND (A-Board) RF ANT. INPUT Filter jig SCL2 ,SDA2 ,FA2	

Procedure	Remarks
1. Apply following RF signal at Antenna input. VIDEO : Flat field , 30% modulation AUDIO : 300Hz ,100% modulation ,monaural (70dB+5dB ,75Ω OPEN P/S 10dB) Note : Make sure 75us PRE-EMPHASIS is off. 2. Adjust "MTSIN" data (Input level) until the RMS voltage meter indicates 106mVrms±6mVrms.	

8.1.2. STERO Sep. Adjustment

Instrument name	Connection	Remarks
1. RF signal generator 2. Oscilloscope 3. Measurement computer	RF ANT. INPUT TPA20 (GND) SCL2 ,SDA2 ,FA2	

Procedure	Remarks
1. Select STEREO mode in the AUDIO Menu. 2. Apply following RF signal at Antenna input. VIDEO : Flat field , 30% modulation AUDIO : 300Hz ,30% modulation (STEREO PILOT only) (70dB+5dB ,75Ω OPEN P/S 10dB) Note: After setting 30% modulation with PL SW and NR SW off, turn PL SW and NR SW on. 3. Adjust "SEPAL" data (Low-level separation) until the amplitude	

4. Apply following RF signal at Antenna input. VIDEO : Flat field , 30% modulation AUDIO : 3kHz ,30% modulation ,STEREO (LEFT only) (70dB±5dB ,75Ω OPEN P/S 10dB) Note: After setting 30% modulation with PL SW and NR SW off, turn PL SW and NR SW on. 5. Adjust "SEPA-H" data (High-level separation) until the amplitude of the waveform on the oscilloscope is minimum. 6. Repeat steps 2. to 5. until Low-level separation and High-level separation satisfy above-mentioned conditions.		The separation must be more than 20 dB at 300Hz and 3kHz.

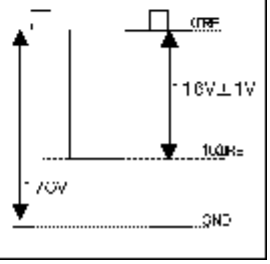
8.2. Clock Adjustment

Instrument name	Connection	Remarks
1. Frequency counter	TP98-GND (A-Board)	

Procedure	Remarks
1. Select the "CLOCK" at SERVICE-MAN MENU. 2. Measurement TP98 (A23 21PIN) for frequency. 3. Set "CLOCK" database on following formula. DATA = 128 + 0.45 X 106 X (732/220 F) / 732/1220	

8.3. Sub contrast Adjustment (NTSC:Other method)

Preparation		
Picture mode : VIVID (NORMAL SET) Adjustment data : BRIGHT,CONT ACL OFF WHITE CHARACTER CORRECTION OFF COLOR OFF VTPK (V contour) OFF DSC OFF AI OFF (NOTE) DON'T OPERATION ABL CIRCUIT.		
Instrument name	Connection	Remarks
1. Oscilloscope 2. Adjustment check RACK 3. Measurement computer	KG CHASSIS SCL , SDA I2A2	

Procedure	Remarks
1 Apply a studio color bar (Other method) 2 Set "BRIGHT" data to "1-D0"h. 3. Adjust "CUT G" data to obtain 170V between 0IRE and GND level at KG. 4. Adjust "CONT" data to obtain 116V ± 1V between 0IRE and 100IRE at KG.	< studio color bar > 

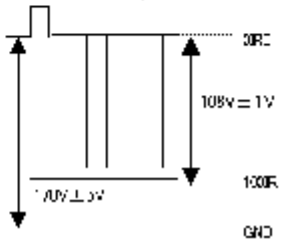
8.4. Sub contrast Adjustment (HDTV)

PREPARATION

Picture settings : VIVID (NORMAL SET)
Adjustment data : BRIGHT CONT
ACL OFF
WHITE CHARACTER CORRECTION OFF
COLOR OFF
VPK (V Contour) OFF
DSC OFF
AI

(NOTE) DONT OPERATION ABL CIRCUIT.

Instrument name	Connection	Remarks
1. Oscilloscope	KG	
2. Adjustment check RACK	CHASSIS	
3. Measurement computer	SCART, SDATA2	

Procedure	Remarks
1. Apply a HD crosshatch pattern. 2. Set "BRIGHT" data to "1-D0"h. 3. Confirm 170V ± 5V between 0IRE and GND level at KG. (Note : Don't adjust CUT G) 4. Adjust "CONT" data to obtain 108V ± 1V between 0IRE and 100IRE at KG.	< HD crosshatch pattern > 

8.5. Color output Adjustment (NTSC)

Preparation		
Natural Color : OFF Picture settings : VIVID (NO-MW SET) Adjustment data : COLOR.TINT ACL OFF WHITE CHARACTER CORRECTION OFF		Those data are Set up automatcaly. Note: Dont operation ABL Circuit
Instrument name	Connection	Remarks
1. Oscilloscope 2. Adjustment check RACK 3. Measurement computer	TP47G TP47B TP47R CHASSIS SCL1 SDA1,FA2	
Procedure		Remarks
1 Make sure the Sub-Contrast Adjustment was finished. 2 Apply a rainbow color bar signal 3 Set "R DR" and "B DR" data to "80"h. 4 Connect an oscilloscope to TP47B. 5 Adjust "TINT" data so that the peak white is located same level as peak "3" within 0V±0.03V as shown as Fig.1.		

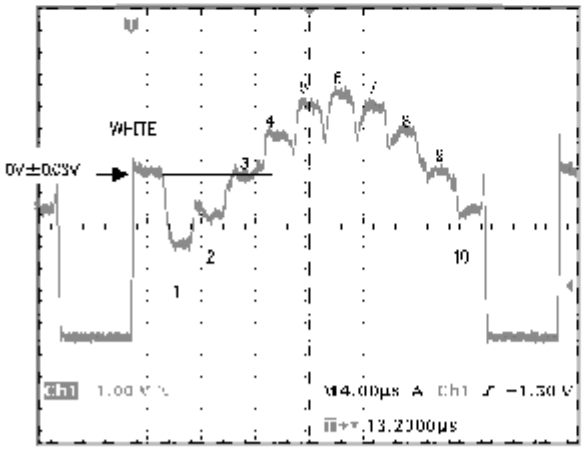


FIG1

6. Connect an oscilloscope to TP47R.
7. Adjust "COLOR" data so that the amplitude "a" becomes 1.0V±0.03V as shown as Fig.2.

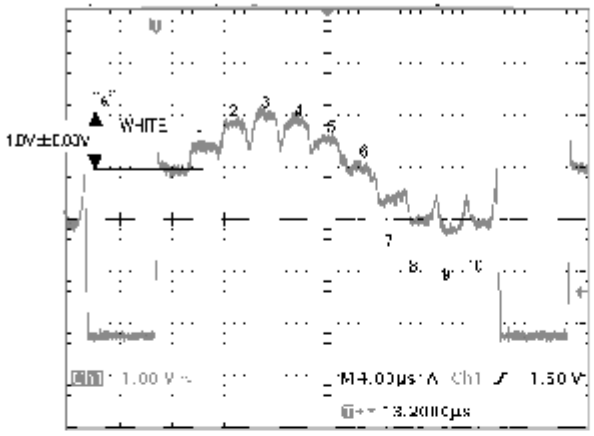


FIG.2

8. Connect an oscilloscope to TP47B.
9. Adjust "B_Y_G" data so that the amplitude "b" becomes 1.2V±0.03V as shown as Fig.3.

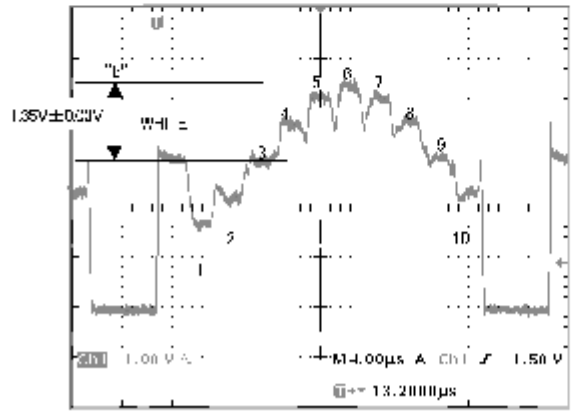


FIG.3

10. Connect an oscilloscope to TP4/B.

11. Adjust "TINT" data so that the peak white is located same as peak "3" within 0V±0.03V as shown as Fig.4.
Then add "TINT" data by 11 steps.

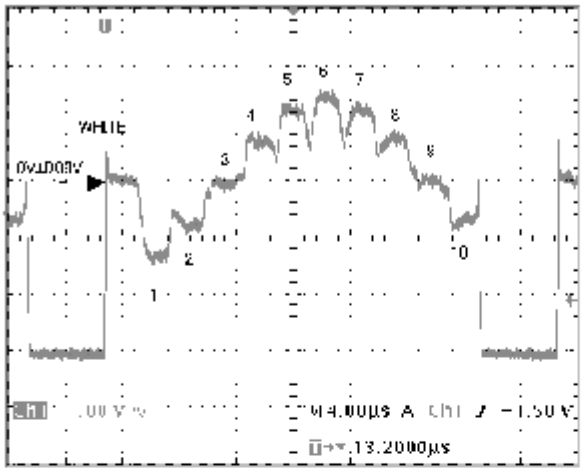
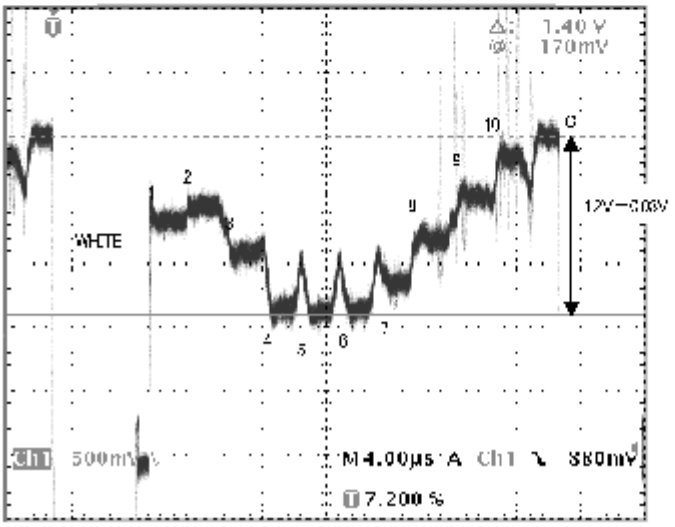


FIG.4

12. Connect an oscilloscope to TP4/G.

13. Adjust "COLOR" data so that the amplitude "c" becomes 1.3V±0.03V as shown as Fig.5.

14. Receive a studio color bar signal and confirm color saturation and color phase is normal.



8.6. Color output Adjustment (HD)

Preparation		
Natural color : OFF Picture settings : VIVID (NORMAL SET) Adjustment data : COLOR, 0INT AGL OFF WHITE CHARACTER CORRECTION OFF Note: Don't operation AGL Circuit.		
Instrument name	Connection	Remarks
1. Oscilloscope 2. Adjustment check RACK 3. Measurement computer	TP47G TP47B TP47R CHASSIS SCL1, SDA1, FA2	
Procedure		Remarks
1. Make sure the Sub-contrast Adjustment was finished. 2. Apply a HDTV color bar signal. 3. Connect an oscilloscope to TP47R 4. Adjust "COLOR" data so that the amplitude "RED" becomes same level as "WHITE" within 0V±0.03V as shown as Fig.1.		

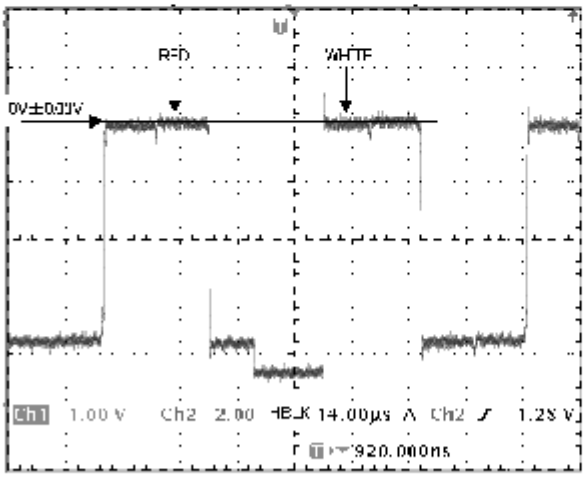
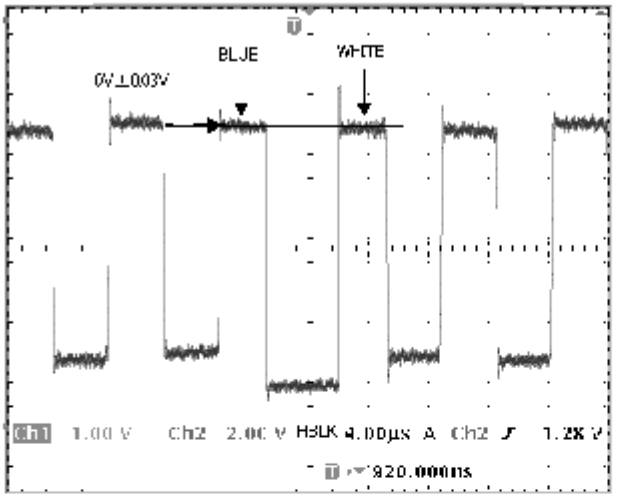
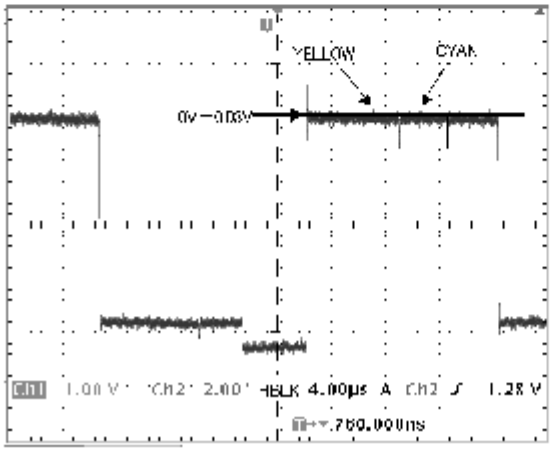


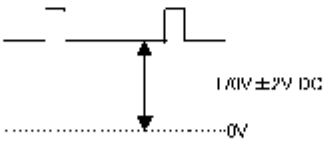
Fig.1

5. Connect an oscilloscope to TP4/B. 6. Adjust "B-Y G" data so that the amplitude "BLUE" becomes same level as "WHITE" within 0V±0.03V as shown as Fig2.  FIG2	
7. Connect an oscilloscope to TP4/G. 8. Adjust "TINT" data so that the amplitude "CYAN" becomes same level as "YELLOW" within 0V±0.03V as shown as Fig3. 9. Receive a HDTV color bar signal and confirm color saturation and color phase are normal.  FIG3	

8.7. CUT - off pre Adjustment

Instrument name	Connection	Remarks
1. Adjustment inspection RACK 2. Measurement computer 3. Oscilloscope	CHASS SCL / SDA I/O TP47G GND GK – GND	

Setting		Remarks
1. Adjustment inspection RACK	Adjust so that picture is ready to appear	
2. Screen volume	Fully counterclockwise	
3. Service SW	ON	
4. "CUT R" data	0-00	
5. "CUT G" data	1-80	
6. "CUT B" data	0-0C	
7. "R DR" data	80	
8. "B DR" data	80	
9."BG/GH" data	1-D0	
10. Picture setting	VIVID / NORMAL SET	
11. White balance SW	STD	

Procedure	Remarks
1. Apply White balance pattern. 2. Push "RECALL" key under "RD/GH" is selected. 3. Observe GK by oscilloscope. Then adjust "CUT G" data so that scanning period get 170V±2V DC. Remove the probe of oscilloscope. GK WAVEFORM  4. Turn screen VR To clockwise slowly and set its point where first color is slightly appeared. 5. Then make above line to white by changing the data for "CUT R" and "CUT B". 6. Push "RECALL" key to turn service SW off. 7. Obtain proper white balance by changing "R DR" and "B DR". 8. Apply a monoscope pattern. 9. Obtain a normal picture by adjusting picture, Brightness controls and Focus volume. Then confirm that picture doesn't has severe misconvergence.	

8.8. Primary test

Procedure	Remarks
1. Connect AC Cord to an outlet, and power switch is turned on 2. Apply monoscope pattern and Focus the picture. 3. Perform rough purity Adjustment. 4. Perform rough convergence Adjustment. 5. Perform rough white balance Adjustment. 6. Connect an Antenna and confirm normal picture and sound.	

8.9. Encasement Aging

Setting		Remarks
1. SOUND LEVEL 2. COLOR CONTROL 3. TINT CONTROL 4. BRIGHTNESS CONTROL 5. PICTURE CONTROL 6. SHARPNESS CONTROL 7. SPLKLR SW AGING MODE	MIN. MAX. CENTER MAX. MAX. MAX ON ON	
Procedure		Remarks
1. Perform Aging at 132V AC for more than 60 minutes. Note : Aging has to be started after OUT off Pre Adjustment.		
Instrument name	Connection	Remarks
1. DC current meter	TP01(-) TP02(+)	
Procedure		Remarks
1. Apply 132V AC. 2. Push the "RECALL" key on the remote transmitter, so that Aging mode comes out. 3. Apply a monoscope pattern. And confirm meter indicates 2400 ± 100uA. 4. If the meter is not above value, adjust Sub-BRIGHT data(BRIGH) and/or screen volume.		

8.10. Width correction Adjustment

Instrument name	Connection	Remarks
1. DIGITAL VOLTAGE METER (DVM)	DVM (+) : TP327 DVM (-) : GND	
Procedure		Remarks
1. Apply a black pattern. 2. Adjust the voltage 1.8±0.1V with R524 on D-Board.		

8.11. Deflection circuit pre Adjustment

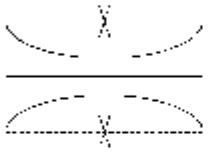
Instrument name	Connection	Remarks
1. High voltage meter	(-) CRT ANODE LEAD	50kV RANGE
2. Adjustment computer	(-) CRT DAG GROUND	
3. Remote transmitter	CRT GND	

Procedure	Remarks
1. Set geomagnetic corr. Menu to "0" (CENTER).	
2. Apply a crosshatch pattern at 480i mode.	
3. Adjust vertical size data to get no rolling.	
4. Obtain a crosshatch pattern.	
5. Use adjustment computer to adjust Brightness and Contrast registers until picture is black.	
6. Memorize original data of Brightness and Contrast. Verify high voltage reading on meter is 33+1.0kV.	
7. Obtain a monoscope pattern, and set above registers to original data.	
8. Verify horizontal width is in normal Range.	
9. Use adjustment computer to adjust F-W PCC (PCC) register.	
10. Use adjustment computer to adjust H-WIDTH (HWID) register proper horizontal size.	
11. Use adjustment computer to adjust H-CENTERING (H POS) register until picture is centered correctly.	
12. Use adjustment computer to adjust KEYSTONE (TRAP) register properly.	
13. Apply a 1080i signal.	
14. Adjust vertical size data to get no rolling.	
15. Obtain a crosshatch pattern.	
16. Use adjustment computer to adjust Brightness and Contrast registers until picture is black. Memorize original data of Brightness and Contrast verify high voltage reading on meter is 33+1.0-2.0kV.	
17. Repeat from 5 to 10 items at 1080i signal.	

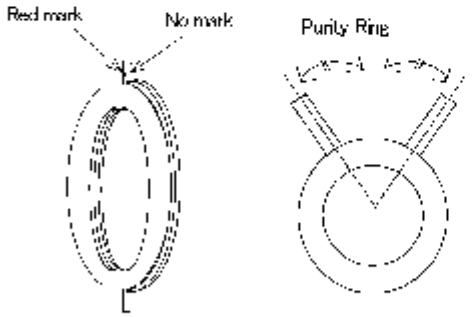
8.12. Purity Adjustment

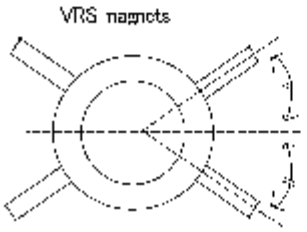
Instrument Name	Setting	Remarks
1. Degaussing coil 2. RF signal generator 3. HD signal generator	• Fully degauss the TV by using an external degaussing coil • Rough adjustment of H-Position, V-Position, White balance, Focus and Convergence has been completed. • Perform aging for more than 60 minutes. • Beam current is $2400^{50}_{-100}\ \mu A$ • Operate the TV for 60 minutes using the first Purity Check field to stabilize the CRT.	

Inspection method	Remarks
1. Fully degauss the CRT by using an external degaussing coil 2. Apply a monoscope pattern, and confirm meter indicate $2400 \pm^{50}_{100}\ \mu A$. 3. Adjusts orchid the CRT to the optimum in the DY back and forth position adjustment and Purity magnet. 4. Apply a HDBB cross hatch pattern or a cross hatch pattern. 5. Adjusts a perpendicular position adjustment magnet so that the upper and lower pin cushion warp to become equal.	



6. If purity error is found, repeat the adjustment step 3 to 5 until an optimum is obtained.
7. Tighten up DY once again 20 – 30 minutes later.

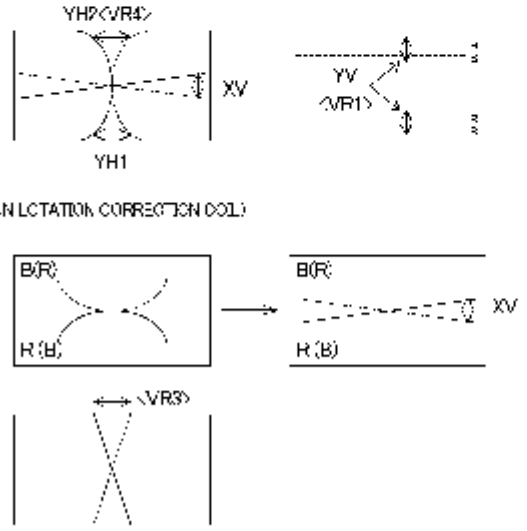




8.13. Convergence adjustment and adjustment of DY (YHC/YV/XV)

Instrument name	Connection	Remarks
HD signal generator (Equivalent of SG-TG9136) or RF signal generator		

Setting	Remarks
•V POSITION and V WIDTH are almost correct. •Set "VIDEO Adj." to "NORMAL". •Rough adjustment of focus has been completed.	

Procedure	Remarks
1.Adjust convergence by 4 pole magnet and 6 pole magnet. 2.Make left and right side of DY Non-tilt. And adjust YV VR of DY. If it is poor, adjust by left and right tilt of DY. 3.Adjust by dielectric coil XV VR and GUN rotation correction coil YH VR so that total convergence may become good. 4.If YH adjustment is poor, correct by top and bottom tilt of DY within not making very degradation of top and bottom distortion balance. 5.If center convergence is poor, Repeat from item 1. 6.Fix DY by lacquer. 	

8.14. Deflection Adjustment (480i/480p)

Instrument name	Connection	Remarks
1. Measurement computer or remote transmitter	SCL1,SDA1,FA9	

Setting		Remarks
1. BRIGHTNESS CONTROL	CENTER(31DAC)	
2. PICTURE CONTROL	MAX.	

Procedure	Remarks

1. Apply a monoscope pattern. Change aspect to FULL mode.
Adjust data of H-CENTERING (H POS) and H-WIDTH (H WID)
Appropriately (left and right horizontal scale 2.5).
Note: If horizontal linearity is poor, to adjust horizontal linearity data (H LIN) at crosshatch pattern.
2. After V-Position (V RAS) Adjustment, adjust V-size data (VEAMP) so that V-size is regular size shown in Fig.1
(Top and bottom vertical scale 2.0).
3. Apply a crosshatch pattern. Then adjust data of V LIN(V C),
V-S CORRECTION(V-S), TRAPEZOID(TRAP), PCC(PCC),
TOP SIDE CORNER PCC (TCPC), BOTTOM SIDE CORNER PCC (BTMC),
PCC BALANCE (SIDE), PARALELLOGRAM (PARA) shown in Fig.2.
4. If upper side and lower side is unbalance, adjust data (PCCHG/PCCLG) so that PCC make good balance.
5. If top and bottom point is not good for corner PCC.
Adjust data (TOPSL/BTMSL) of slice level.

6. Apply a monoscope pattern. Then confirm V POSITION(V RAS),
V-SIZE (VEAMP), H-POSITION (H POS), H-WIDTH (H WID).
If they are poor, readjust them.
7. Apply monoscope pattern and crosshatch pattern.
Then confirm that it is regular size shown in Fig.1 and Fig.2.
8. Write adjustment data to EEPROM.

Regular size : NTSC FULL

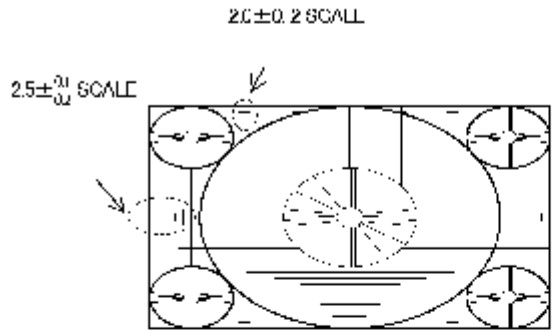
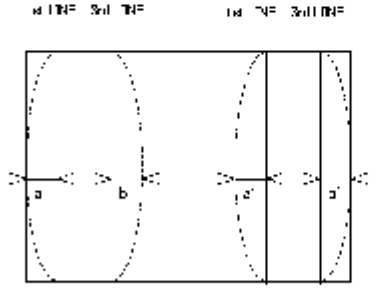


FIG.1

PCC, PCC BALANCE



Adjust so that 1st line and 2nd line make good balance of monoscope pattern.

$a \simeq b \simeq a' \simeq b'$

9. Apply monoscope pattern. Change aspect mode to JUST mode.

Regular size : NTSC JUST

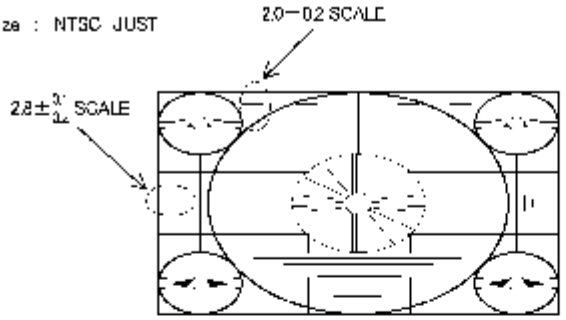
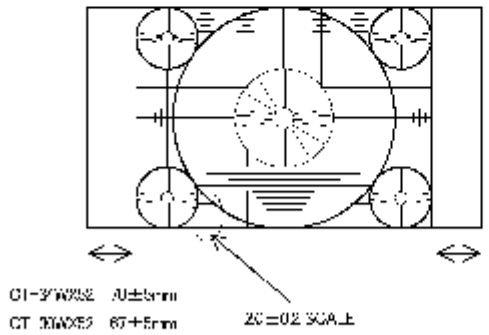


Fig3

10. Change aspect mode to 4:3 mode.
Then confirm to satisfy regular size shown in Fig4.

Regular size : NTSC 4:3

Fig4



Note:
If any point is not good, the Adjust connection data.

11. Apply 480p monoscope pattern.
    (3. Confirm size and linearity of horizontal and vertical for each aspect mode.
        480p FULL : Fig.1 and Fig.2
        480p JUST : Fig.3
        480p 4:3   : Fig.4
12. Apply 480p monoscope pattern. Change aspect mode to ZOOM mode.
13. After V Position(V RAS) adjustment, adjust V size data(VTAMP) so that V size is regular size shown in Fig.5
14. Apply a crosshatch pattern. Then adjust data of V-LIN(V-C),
    V S CORRECTION(V S), TRAPEZOID(TRAP) PCC(PCC),
    TOP SIDE CORNER PCC(TCPC) BOTTOM SIDE CORNER PCC(BTMC),
    PCC BALANCE (SIDE) PARALELLOGRAM (PARA) shown in Fig.6.
15. If upper side and lower side is unbalance, adjust data (PCCUG/PCCLG) so that PCC make good balance.
16. If top and bottom point is not good for corner PCC.
    Adjust data (TOPSL/BTMSL) of slice level.
    19.Apply a monoscope pattern. Then confirm V POSITION(V RAS),
    V-SIZE (VEAMP), H-POSITION (H POS), H-WIDTH (H WID).
    If they are poor, readjust them.
17. Apply monoscope pattern and crosshatch pattern.
    Then confirm that it is regular size show in Fig.5 and Fig.6.
18. Write adjustment data to EEPROM.
19. Confirm similarly also H480i signal for ZOOM mode.

Note:
If any point is not good, Re adjust correction data.

Regular size : NTSC ZOOM

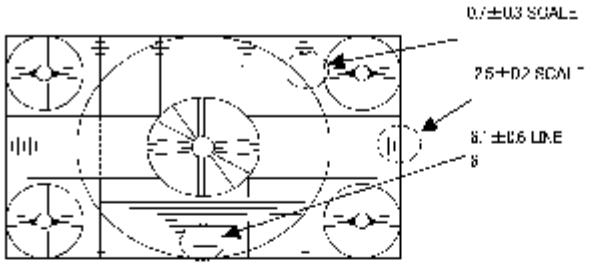
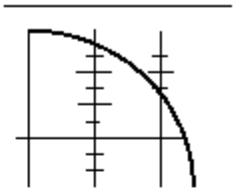


FIG.5

Chip of top small circle is equal to it of bottom circle.

Expansion



POC, POC BALANCE

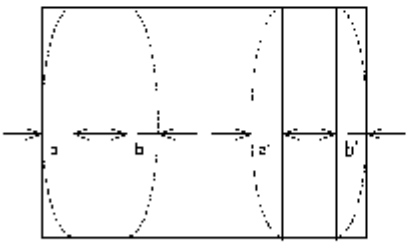


FIG.6

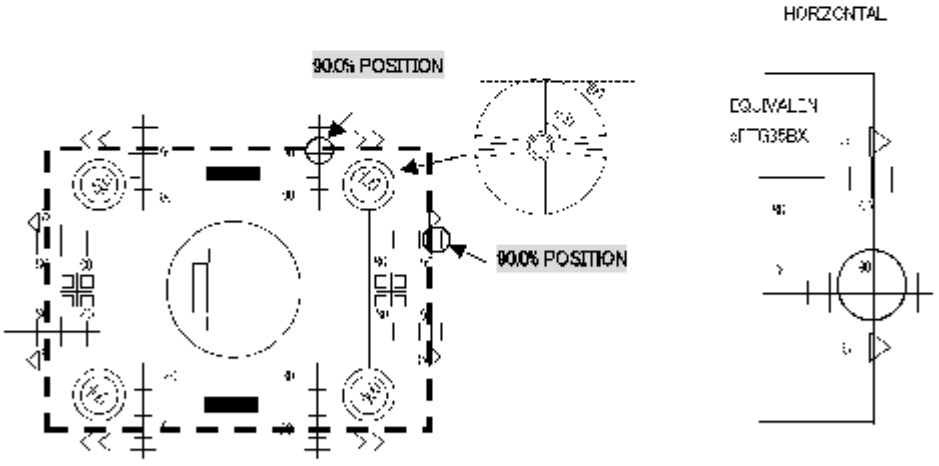
Adjust so that 1st line and 3rd line make good balance at monoscope pattern.

a ≃ b ≃ a' ≃ b'

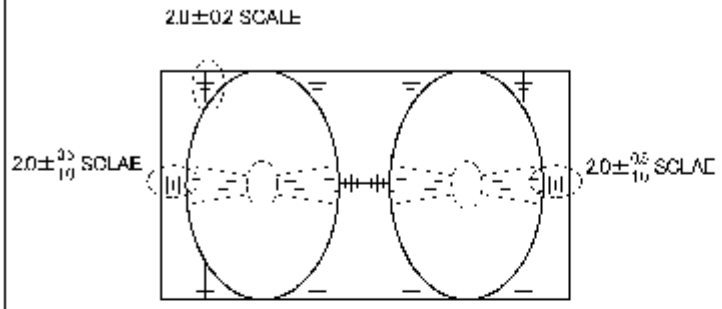
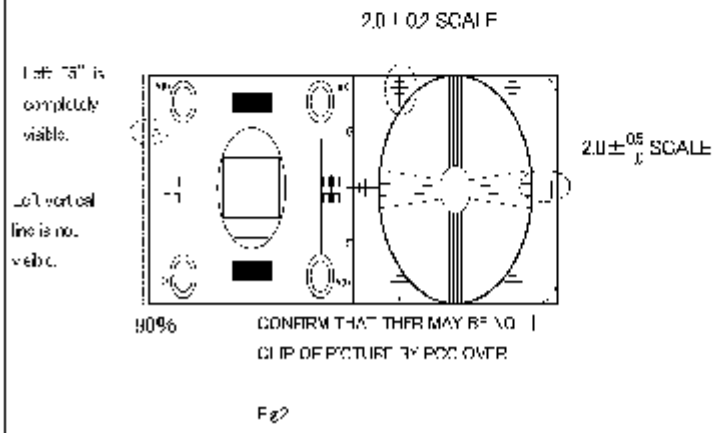
8.15. Deflection Adjustment (1080i)

Instrument name	Connection	Remarks
1. Measurement computer or remote transmitter Signal generator (1080 16:9 signal)	SCL1,SDA1,HA2	

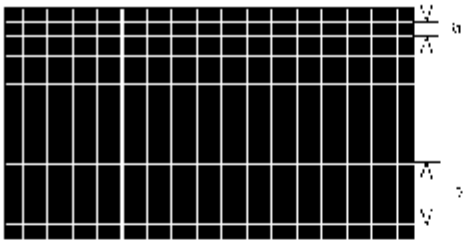
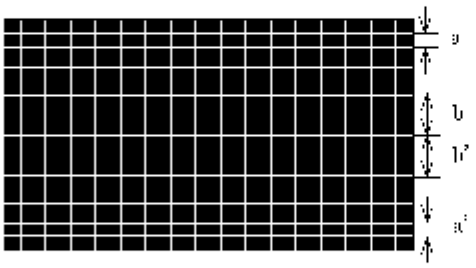
Setting		Remarks
1. BRIGHTNESS CONTROL	CENTER(31DAC)	
2. PICTURE CONTROL	MAX.	

Procedure	Remarks
1. Apply a 1080i monoscope pattern to component input. Then adjust data of V-SIZE(VLAMP),V-POSITION(VBIAS), H-WIDTH(HWID),H-POSITION(HPOS) SO THAT V-SIZE,V-POSITION, H-WIDTH, H-POSITION satisfies regular shown in Fig.1. 2. Apply a 1080i crosshatch pattern. Then adjust data of V-LIN (V-C), V-S CORRECTION (V-S), TRAPEZOID (TRAP), PCC (PCC), TOP SIDE CORNER PCC (TCPS), BOTTOM SIDE CORNER PCC (BTMG), PCC BALANCE (SIDE), PARALLELOGRAM (PARA) and (PCCHG/PCCLG/TOPSI/BTMSI). (see Defelection Adjustment (480i/480p) item 3) 3. Apply a 1080i monoscope pattern and crosshatch pattern. Then confirm that it is regular size shown in Fig.1. 4. Write adjustment data to EEPROM. Regular size  FIG.1 Adjust so that H-width is 90% scan. And adjust so that 90% line match edge of screen. Adjust so that V-size is 90.0% scan. The area over 90.0% at screen top is poor for V-LIN and takes notice that this area is disappeared.	

8.16. Deflection Adjustment (DOUBLE WINDOW)

Procedure	Remarks
1. Apply a monoscope pattern of NTSC to both current picture and child picture. 2. Confirm that it is regular size show in Fig.1.    Fig.1 3. Apply a 1080i monoscope pattern to parent picture and a NTSC child picture. 4. Confirm that it is regular size show in Fig.2.    Fig.2

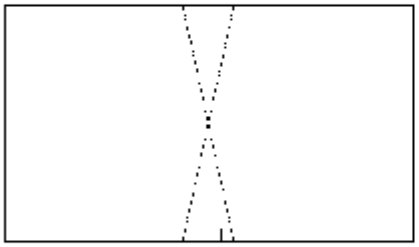
8.17. Deflection Adjustment Procedure

Procedure	Remarks
<V-LINEARITY(V-C)>  Adjust so that horizontal lines may be equally spaced (a =b). <V-S CORRECTION(V-S)>  Adjust so that horizontal lines may be equally spaced (a =b, a' =b').	

<POC BALANCE (SIDE)>

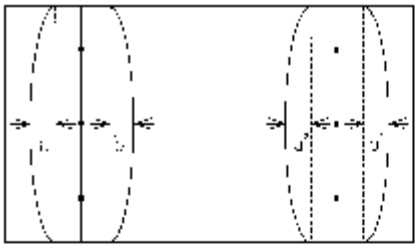
Adjust data of POC balance (side) so the POC of left and right side 2nd vertical lines are good balance.
In this case, be careful that center vertical line does not become bow remarkably.

<PARALELLOGRAM (PARA)>



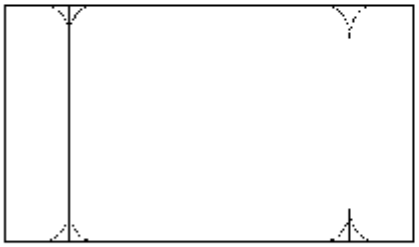
Adjust so that center vertical line is vertical.
Note that left and right side vertical lines have parallelogram.
Adjust data of parallelogram so that left, right and center vertical line may become good balance.

<PCC (PCC)>

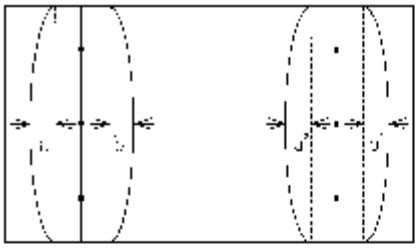


Adjust PCC data so that line on both side of vertical dot line become good balance (a=b=c=d).
At NORMAL JUST. and ZOOM mode, adjust with outside line of vertical dot line.

<TOP/BOTTOM SIDE CORNER PCC (TOPC/BTMC)>

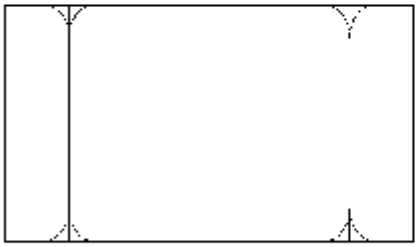


<PCC (PCC)>

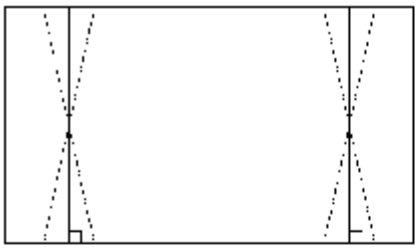


Adjust PCC data so that line on both side of vertical dot line become good balance (a=b=c=d).
At NORMAL JUST. and ZOOM mode, adjust with outside line of vertical dot line.

<TOP/BOTTOM SIDE CORNER PCC (TOPC/BTMC)>

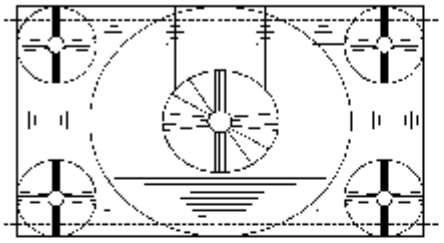


<TRAPIZOID(TARP)>

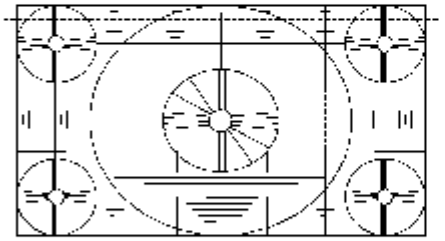


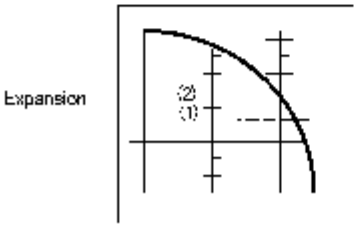
Adjust data of TRAPIZOID(TRAP) so that both side vertical lines become vertical

<V-HEIGHT (V-HET)>
(FULL) Right/Left 2.0scale±0.2
(NORMAL) 2.0scale+0.2
(JUST) 1.8scale±0.1

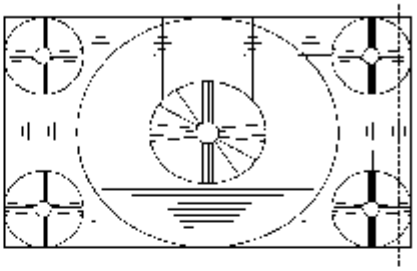


<V-HEIGHT ZOOM mode>
(upper) 0.7scale±0.3
(lower) 6.1line±0.6





<H-WIDTH (H-WID)>
(FULL) Right/Left 2.5scale±$^{0.1}_{0.2}$
(ZOOM) 2.5scale±0.2
(JUST) 2.8scale±$^{0.1}_{0.2}$



8.18. DAF Adjustment

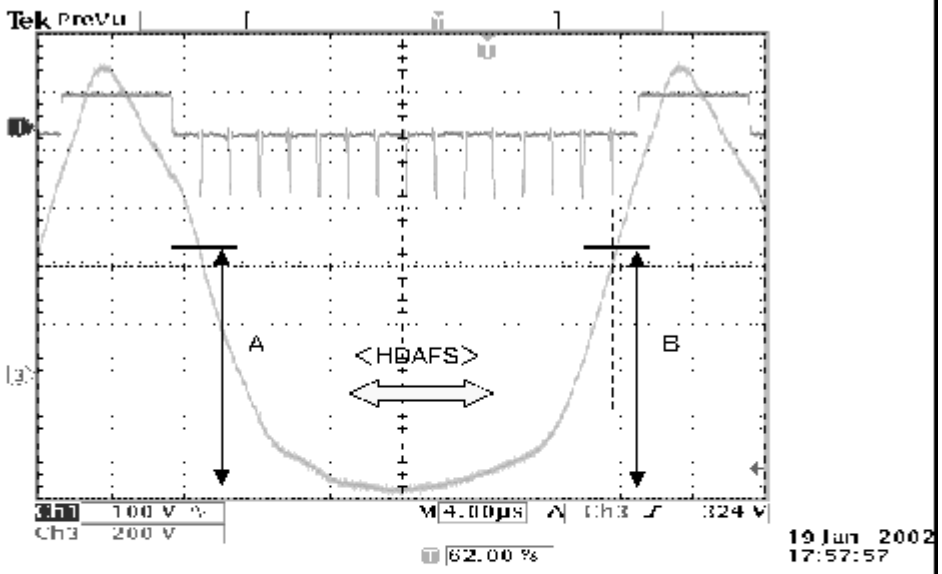
Instrument name	Connection	Remarks
1. Oscilloscope with 100x1 probe 10X1 probe	DAF OUT (J172) – GND KG – GND DAF OUT (J172) – GND KG – GND	

Setting		Remarks
BRIGHTNESS CONTROL	CENTER(31 DAC)	
PICTURE CONTROL	MAX.	

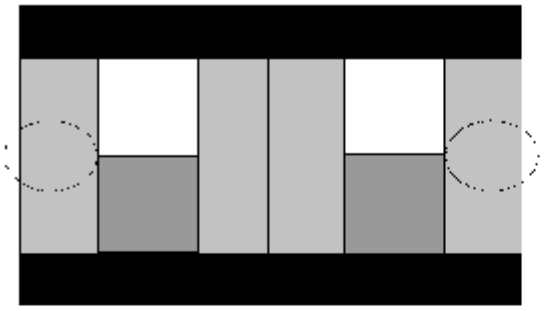
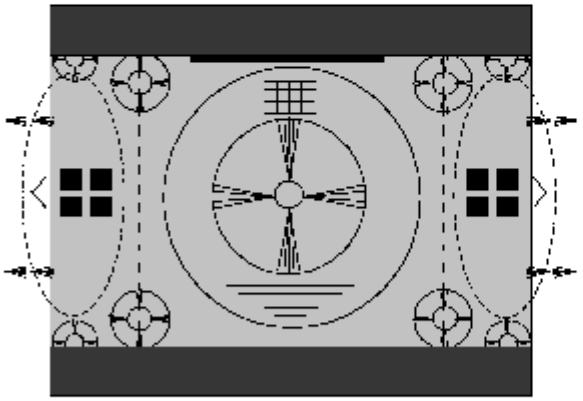
Procedure — Remarks

1. Apply a cross hatch pattern (NTSC).
2. Connect oscilloscope DAF out (DAF WAVE FORM) and KG (SIGNAL WAVE).
   If the level of "A" and the level of "B" are different. Adjust data "H DAF phase" (HDAFS) so that became the same level.(Fig. 1)
3. Apply a crosshatch pattern (DTV 1080i).
4. Same as (NTSC)
   If the level of "A" and the level of "B" are different, adjust data "H DAF phase" (HDAFS) so that became the same level. (Fig. 1)
5. Apply a crosshatch pattern (525p).
   If the level of "A" and the level of "B" are different. adjust data "H DAF phase"(HDAFS) so that became the same level. (Fig.1)
6. Confirm that Focus balance of left side and light side is same level. both NTSC signal and 1080i signal.

FIG. 1



8.19. DAF Adjustment (Moire check)

Procedure	Remarks
1. Apply a white balance pattern at split picture mode (NTSC). 2. Confirm no moire on the both side of display.  3. Apply a ITE monoscope pattern (DTV 1080i) Y=40% signal level 4. Confirm no moire on the both side of display. 	

8.20. Focus Adjustment

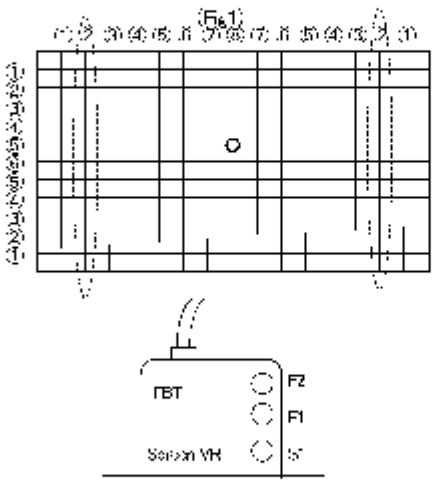
Instrument Name	Setting	Remarks
1. HD signal generator	HD Crosshatch	
2. RF signal generator	Crosshatch	

Inspection method — Remarks

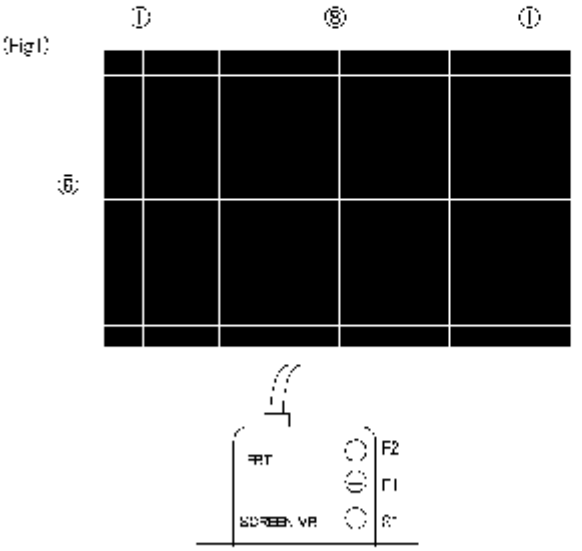
1. Apply a crosshatch pattern.
2. Adjust the FOCUS VOLUME1 so that the vertical lines two lines from the edge is minimizes.
3. Turn the FOCUS VOLUME2 fully counterclockwise, and adjust the FOCUS VOLUME2 so that the center of picture is the sharpest.

Note: The focus is balanced for the centerline (vertical) of the crosshatch pattern and the vertical lines two lines from the edge.

4. Repeat the adjustments 2 and 3 Until an optimum is obtained.
5. Apply a HD crosshatch pattern and confirm the focus.



6. Apply a 1080i crosshatch pattern and confirm the focus.

Instrument Name 1. HD signal generator	Setting	Remarks
Inspection method		Remarks
Apply a crosshatch pattern. Adjust the FOCUS VOLUME1 so that the thickness of vertical lines one line from the edge minimizes and two white lines can be seen. Turn the FOCUS VOLUME2 fully counterclockwise. Adjust the FOCUS VOLUME2 so that the center of picture is the sharpest, and two white lines can be seen. Note: The focus is balanced for the centerline (vertical) of the crosshatch pattern and the vertical lines two lines from the edge. 5. Repeat the adjustments 2 and 4 until an optimum is obtained. 6. Apply a HD crosshatch pattern and confirm the focus. (Fig1)  5. Apply a 1080i-crosshatch pattern and confirm the focus.		

8.21. White balance Adjustment

Instrument name	Connection	Remarks
1. White balance meter 2. Measurement computer 3. Oscilloscope	Surface of CRT SCL1,SDA1,FA2 KG – GND	Band width : More than 5MHz

	Setting	Remarks
1. Screen VR	Fully counter clockwise	
2.Cut off & Drive data	"CUT R" = 0-00 "CUT G" = 1-80 "CUT B" = 0-00 "R DR" = 80 "B DR" = 80 "UH" = 1-D0	
3. PIC MODE	VIVID (NORMALIZED)	
4.White balance SW	NORMAL	

Procedure — Remarks

1. Apply a white balance pattern.
2. Push "RLC/ALL" key when "CUT G" is selected.
3. Observe GK oscilloscope. Then adjust "CUT G" data so that scanning period get 170V±2V DC.
   Remove the probe of oscilloscope.

GK WAVEFORM

4. Turn Screen VR to clockwise slowly and set its point where first color is slightly appeared.
5. Then make above line to white by changing the data for "CUT R" and "CUT B".
6. Push "RECALL" key to turn Service SW off.

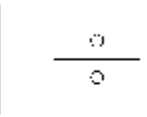
Low right Adjustment

7. Set "COLOR TEMP" to COOL.
8. Place the light reception face of the White balance meter on each position shown in Fig.1.
Adjust data of "BRT" and "CONT" so that luminance of Low (Black) parts and High (White) parts in picture center may become following value. (Memory data of "CONT").

Note: because Adjustment of Low parts and High parts affect each other, Repeat Adjustment until both Low parts and High parts become following value.

	ADJUSTMENT SPEC	DATA
LOW(BLACK) PARTS	6.0±0.6 [cd/m^2]	BRT
HIGH(WHITE) PARTS	180.0±8.0 [cd/m^2]	CONT

(HIGH)
Food position of White balance meter



9. Place the light reception face of the white balance meter on center of Low (Black) parts in picture pattern. (See Fig.2)

10. Adjust each of "CUT R" and "CUT B" so that white balance meter may indicate following value. If luminance is different from following value, Readjust data of "BRT".

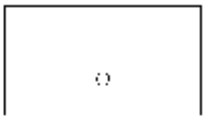
[NTSC LOW LIGHT]

	ADJUSTMENT SPEC		DATA
	CT-34WX52	CT-30WX52	
COLOR TEMP.[K]	11000+200	11000+200	CUT R
DEVIATION[ΔuV]	0.002+0.002	0.002−0.002	CUT B
LUMINANCE[cd/m²]	5.0±0.6	5.0±0.6	BRT

HIGH LIGHT ADJUSTMENT

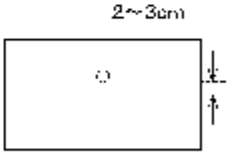
11. Place the light reception face of the White balance meter on position near the fixed bottom edge is 2~3cm UP from V center of High (White) parts in picture pattern (See Fig.3)

(FIG.2)
Fixed position of white balance meter



※ Set the head of White balance meter to position that Color SAG is nothing.

(Fig.3)
Fixed position of White balance meter



12. Adjust data of "R DR" and "B DR" so that White balance meter may indicate following value. If luminance is different from following value, Readjust data of "CONT".

[NTSC HIGH LIGHT]

	ADJUSTMENT SPEC		DATA
	CT-34WX52	CT-30WX52	
COLOR TEMP.[K]	13000±200	13000±200	R DR
DEVIATION[ΔUV]	-0.005±0.002	-0.005±0.002	B DR
LUMINANCE[cd/m^2]	160.0±8.0	160.0±8.0	CONT

13. Confirm the White balances of Low light.
If it is poor. Repeat item 12 to item 13.
14. If you change data of "CONT", Return former data.

HD WHITE BALANCE

15. Set "COLOR TEMP" to COOL.
16. Apply HD White balance pattern.
17. Confirm that HD White balance is as same as NTSC.

8.22. Sub-Bright Adjustment (HD/NTSC)

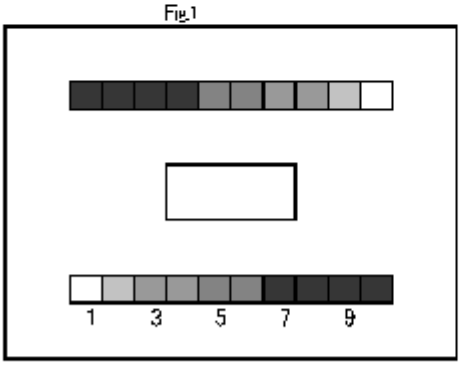
Instrument name	Connection	Remarks
1. Measurement computer	SCL/SDA(J A2	
Setting		Remarks
1. PICTURE SETTINGS	VIVID (NORMAL)	
2. NATURAL COLOR	OFF	
3. COLOR TEMP	NORMAL	
4. BRIGHT (NTSC)	1-80	
BRIGHT (HD)	1-80	
Procedure		Remarks

<Condition>

- The adjustment of Sub Contrast, Sub Color and White balance complete.
- Do this adjustment in the dark room

1. Apply a window pattern.
2. 2.Adjust data of BRIGHT so that the 1st paragraph shines faintly and 2nd paragraph dose to the sinking style. (See Fig.1)
3. Adjust data of "480i BRIGHT" so that the 6th paragraph shines faintly and 7th paragraph dose to the sinking style. (See Fig.1)
4. Copy the data of "BRIGHT" mode to "1125i BRIGHT" mode

Fig.1

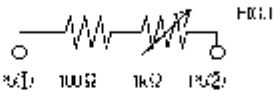


8.23. Heater voltage Confirmation

Instrument name	Connection	Remarks
1. RMS VALUE VOLTMETER	CRT POINT HEATER TEMINAL	10V CLASS 0.5
2. DC AMP METER	TPD1(+) TPD2(-)	3mA CLASS 0.5
Procedure		Remarks

1. Obtain monoscope pattern and adjust BRIGHTNESS and picture controls to achieve 1090uA indication on the DC amp meter.
2. Confirm that heater Voltage should be at 6.0Vrms±0.24Vrms.

8.24. X-Ray protection Circuit check for automated test

Instrument name	Connection	Remarks
1. DIGITAL VOLTMETER 2. High voltage meter 3. HHS Jig	(+) D10 ③ (-) D10 ④ (+) CRT ANODE (CRT SIMULATOR ANODE) (-) DAG AND CONNECTOR L11  	50kV ELECTROSTATIC

Procedure	Remarks
1. Apply a black pattern. 2. Connect Digital voltmeter to D10 34 3. Adjust data (HHS) so that the voltage is 5.70V (+0.02, -0.02) 4. Set customer PICTURE and BRIGHTNESS controls to a minimum (Of IF USE CRT SIMULATOR ANODE, SET IT'S LOAD CURRENT TO 50uA TO 100uA BY SETTING BEAM CURRENT REFFERENCE DAC TO 375h V) 5. Turn power off 6. Connect HHS Jig between TPD50 and TPD51as shown in Fig.1. ※1kΩ VR should be turn clockwise. 7. Turn power on. 8. Turn the volume until shut down works and check that the high voltage is as the limit specified 37.2kV for the chassis type being produced. 9. Turn power off and remove HHS Jig&digital voltage meter.	

9. Conductor Views

9.1. A-Board

9.2. D-Board

9.3. DG-Board

9.4. G and K-Board (CT-30WX52)

9.5. G and K-Board (CT-34WX52)

9.6. L-Board

9.7. P-Board

10. Block Diagram

10.1. Power Block Diagram

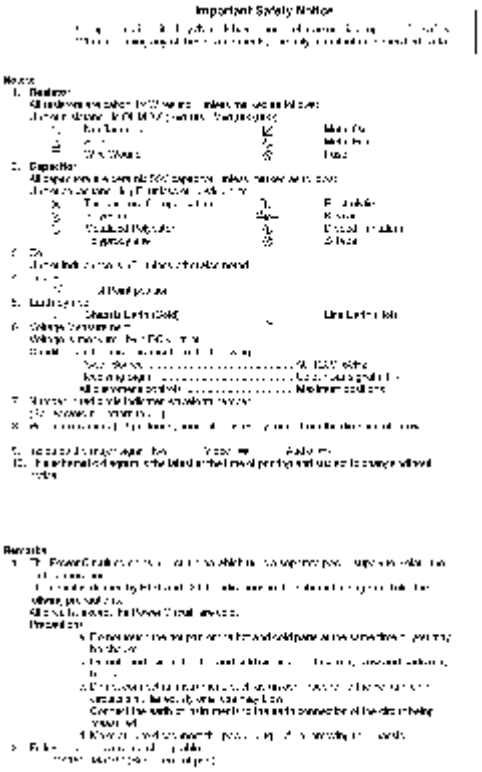
10.2. Control Block Diagram

10.3. Audio Block Diagram

10.4. Video Block Diagram

11. Schematic Diagrams

11.1. Schematic Diagram Notice



11.2. A-Board (1 of 2) Schematic Diagram

11.3. A-Board (2 of 2) Schematic Diagram

11.4. D-Board (1 of 2)Schematic Diagram

11.5. D-Board (2 of 2)Schematic Diagram

11.6. DG-Board (1 of 3) Schematic Diagram

11.7. DG-Board (2 of 3) Schematic Diagram

11.8. DG-Board (3 of 3) Schematic Diagram

11.9. G and K-Board Schematic Diagram

11.10. L-Board Schematic Diagram

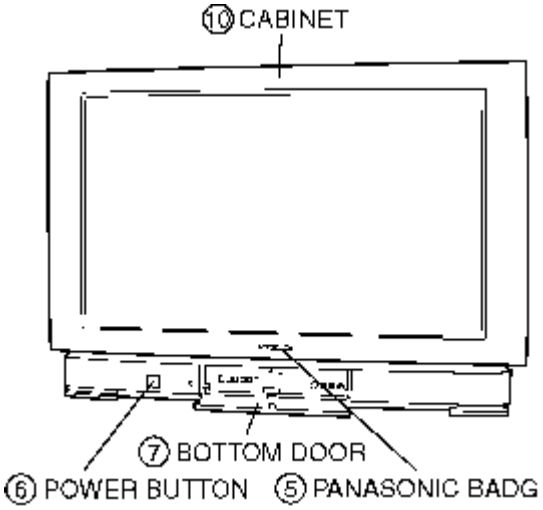
11.11. P-Board Schematic Diagram

12. Parts Location

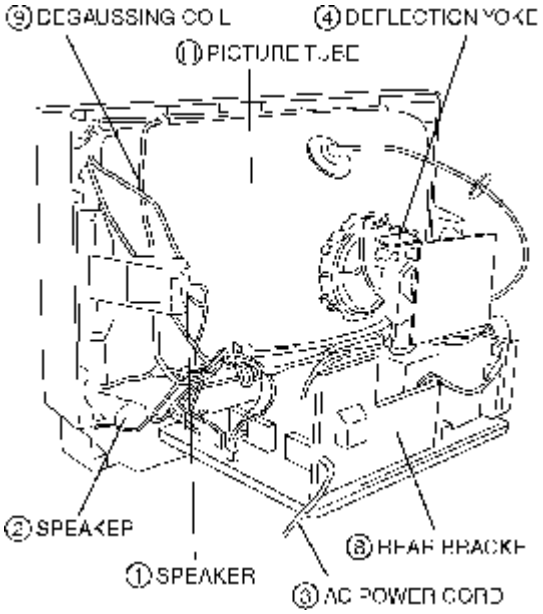
Note:

The number on mechanical parts indicates Ref. No. Mechanical Replacement Parts List

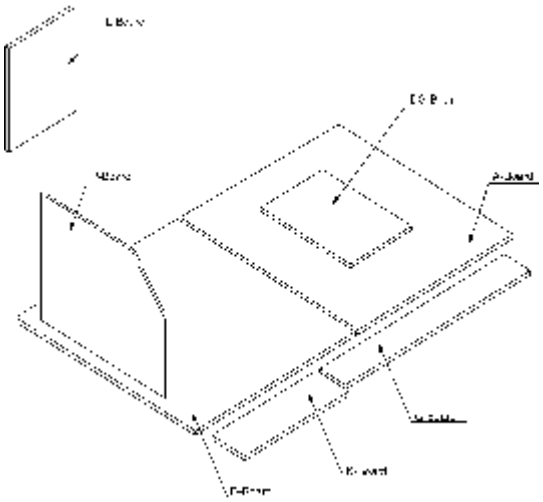
- Front View



- Rear View



- Chassis Board Layout View



13. Mechanical Replacement Parts Lists

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1	EASG4FP10C2	SPEAKER	1	
2	EAST12D07C6	SPEAKER	2	
	ENPE2A001	2RF SPLITTER	1	
	EUR7603Z70	REMOCON TRANSMITTER	1	
3	K2CB2DZ00005	AC POWER CORD	1	⚠
4	KDY4WHA64F	DEFLECTION YOKE	1	CT-34WX52 ⚠
4	KDY4YHA65F	DEFLECTION YOKE	1	CT-30WX52 ⚠
5	TBMA110	PANASONIC BADGE	1	CT-34WX52
5	TBMA111	PANASONIC BADGE	1	CT-30WX52
	TBME637	MODEL NAME PLATE	1	CT-34WX52 (USA) ⚠
	TBME638	MODEL NAME PLATE	1	CT-30WX52 (USA) ⚠
	TBME654	MODEL NAME PLATE	1	CT-34WX52 (CANADA) ⚠
	TBME655	MODEL NAME PLATE	1	CT-30WX52 (CANADA) ⚠
6	TBXA32903	POWER BUTTON	1	
	TEKC011	DAMPER	1	
	TEKX008	DOOR CATCHER	1	
	TES4156	SPRING	1	
	TES4G204	SPRING	1	
	TESA031	SPRING	2	
	TESD020	COIL SPRING	1	
	TESH023	SPRING	1	
	THT1062	SCREW	4	
	THTA006Z	SCREW	14	
	TKKL5124	FOCUS COVER	1	
	TKKL5130-2	AC CORD COVER	1	⚠
7	TKPA54503	BOTTOM DOOR	1	⚠
8	TKPA62101	REAR BRACKET	1	
	TMK15945	INSULATOR	1	
	TMKX051	INSULATOR	2	
	TMM16452	CLAMPER	2	
	TMM25403	CLAMPER	2	
	TMM2AE0291	CLAMPER	3	
	TMM2AE0301	SPACER	1	
	TMM2AE0311	CLAMPER	1	
	TMM6463-1	CLAMPER	2	
	TMM7443-3	CLAMPER	5	
	TMM7468-1	CLAMPER	2	
	TMME015	CLAMPER	4	
	TMME047	CLAMPER	1	
	TMME055	CLAMPER	4	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
	TMME182	CLAMPER	1	
	TMME201	INSULATOR	1	
	TMMJ055	DYWEDGE	4	
	TMWA021-2	CONTROL BRACKET	1	
	TMWJ024	LED HOLDER	1	
	TMZK5010	SPEAKER BRACKET	1	
	TPCB22901A	CARTON BOX	1	CT-34WX52
	TPCB23001A	CARTON BOX	1	CT-30WX52
	TPDA0615	CUSHION (TOP)	1	CT-34WX52
	TPDA0616	CUSHION (BOTTOM)	1	CT-34WX52
	TPDA0617	CUSHION (REAR)	1	CT-34WX52
	TPDA0628	CUSHION(UPPER)	1	CT-30WX52
	TPDA0629	CUSHION(BOTTOM)	1	CT-30WX52
	TPDA0630	CUSHION(REAR)	1	CT-30WX52
	TPDF0857	CUSHION SPACER (BOTTOM)	1	
	TPEH007-3	PROTECT COVER	1	
	TPEH033	PROTECT COVER	1	
	TQBC0385-1	INSTRUCTION BOOK(ENGLISH)	1	⚠
	TQBC0387-1	INSTRUCTION BOOK(FRENCH)	1	(CANADA) ⚠
	TQBC7060	SERVICE CENTER LIST	1	(USA)
	TSM10032-3	MAGNET	1	
	TSN63115-4	MAGNET	6	
9	TSPA162	DEGAUSSING COIL	1	CT-34WX52 ⚠
9	TSPA163	DEGAUSSING COIL	1	CT-34WX52 ⚠
	TTUA0527	REAR COVER	1	CT-34WX52 (USA) ⚠
	TTUA0528	REAR COVER	1	CT-30WX52 (USA) ⚠
	TTUA0538	REAR COVER	1	CT-34WX52 (CANADA) ⚠
	TTUA0539	REAR COVER	1	CT-30WX52 (CANADA) ⚠
10	TTYA0513	CABINET	1	CT-34WX52 ⚠
10	TTYA0514	CABINET	1	CT-30WX52 ⚠
	TXJ/RF0GAR	RF CABLE	1	
11	W76LPX955X-V	PICTURE TUBE	1	CT-30WX52 ⚠
11	W86LPX955X-V	PICTURE TUBE	1	CT-34WX52 ⚠
	XTB4+12A	SCREW	1	
	XTB4+15A	SCREW	11	
	XTB4+15AFZ	SCREW	5	
	XTV3+12G	SCREW	20	
	XTV3+6J	SCREW	2	
	XTW3+10T	SCREW	10	
	XTW3+12T	SCREW	2	
	XTW3+8T	SCREW	3	
	XYN3+C10	SCREW	1	
	XYN3+C8	SCREW	1	
	XYN3+F10	SCREW	1	
	XYN3+F12	SCREW	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
	XYN3+F6	SCREW	3	
	XYN3+F8	SCREW	10	
	XZBT6506	POLYBAG	1	

14. Replacement Parts List

14.1. Replacement Parts List Notes

Important Safety Notice

Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

RTL (Retention Time Limited)

Note: The marking (RTL) indicates that the Retention Time is Limited for the item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.

Abbreviation of part name and description

1. Resistor

Example:

ERD25TJ104 C 100KOHM, J, 1/4W

Type Allowance

2. Capacitor

Example:

ECKF1H103ZF C 0.01UF, Z, 50V

Type Allowance

Type	Allowance
C : Carbon	F : ±1%
F : Fuse	G : ±2%
M : Metal Oxide	J : ±5%
Metal Film	K : ±10%
S : Solid	M : ±20%
W : Wire Wound	

Type	Allowance
C : Ceramic	C : ±0.25pF
E : Electrolytic	D : ±0.5pF
P : Polyester	F : ±1pF
Polycarbo	G : ±2pF
lene	J : ±5pF
T : Tantalum	K : ±10pF
	L : ±15pF
	M : ±20pF
	P : +100%, -0%
	Z : +80%, -20%

14.2. Electrical Replacement Parts List

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
A1-A3	TJS5A9190	10P CONNECTOR	3	K1KB10A00091
A4-A7	TJSF20016	16P CONNECTOR	4	K1KB16A00050
A11	TJS3A9880	8P CONNECTOR	1	K1KA08A00179
A12	K1KA02A00188	2P MINI CONNECTOR	1	
A14	K1KA02A00188	2P MINI CONNECTOR	1	
A15	TJS1A8140	PHONO PIN (8P)	1	K1KA08B00064
A21-23	K1KA30A00128	30P CONNECTOR	3	
AC1,C2	TJS3A9630	CONNECTOR	2	K1KA03A00183
C038	EEUFC1A471	E 470UF, 10V	1	
C039	ECA1HM4R7	E 4.7UF, 50V	1	
C040	ECA1VM470	E 47UF, 35V	1	
C041	ECA1HM2R2	E 2.2UF, 50V	1	
C042	ECA1VM470	E 47UF, 35V	1	
C043	ECA1HM4R7	E 4.7UF, 50V	1	
C044	ECA1VM470	E 47UF, 35V	1	
C045	ECA1HM2R2	E 2.2UF, 50V	1	
C047	ECA1HM010	E 1UF, 50V	1	
C050,51	ECJ2XC1H101J	C 100PF, J, 50V	2	
C058,59	ECA1HMR22	E 0.22UF, 50V	2	
C060	ECA1HM4R7	E 4.7UF, 50V	1	
C405	ECA1HM102	E 1000UF, 50V	1	
C406	ECQV1H105JM	P 1UF, J, 50V	1	
C407	ECKF1H103ZF	C 0.01UF, Z, 50V	1	
C408,09	ECA1VM102	E 1000UF, 35V	2	ECA1VM102E
C411	ECQB1H472JF	P 4700PF, J, 50V	1	
C412	ECQB1224KF	P 0.22UF, 100V	1	
C413	ECA1HM010	E 1UF, 50V	1	
C414	ECQB1H272JF	P 2700PF, J, 50V	1	
C415	ECQB1473KF	P 0.047UF, K,100V	1	
C416	ECQB1H472JF	P 4700PF, J, 50V	1	
C419	EEUNA1A470	E 47UF, 10V	1	
C420,21	ECA1CM101	E 100UF, 16V	2	
C422	ECA1HM010	E 1UF, 50V	1	
C433	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
C438	ECQB1H102JF	P 1000PF, J, 50V	1	
C439	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C440	ECA1HM100	E 10UF, 50V	1	
C457	ECEA1EN4R7U	E 4.7UF, 25V	1	
C501	ECA1VM101	E 100UF, 35V	1	
C502	ECQV1H104JM	P 0.1UF, J, 50V	1	
C503	ECKD2H102KB2	C 1000PF, K,500V	1	
C506	ECA1CM471	E 470UF, 16V	1	
C509	ECKD3A222KBP	C 2200PF, K, 1KV	1	
C510	ECJ2XC1H221J	C 220PF, J, 50V	1	
C511	ECWH20432JVY	P 4300PF, J, 2KV	1	⚠
C513	ECQF6103JZH	P 0.01UF, J,630V	1	⚠
C514	ECWH20332JVY	P 3300PF, J, 2KV	1	⚠
C515	ECKD3A222KBP	C 2200PF, K, 1KV	1	
C516	ECWF2184JSR	P 0.18UF, J,250V	1	⚠
C517	ECWF2684JSR	P 0.68UF, J,250V	1	CT-34WX52 ⚠

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C518,19	ECKD3D681KBN	C 680PF, K, 2KV	2	⚠
C520	ECQB1H183JF	P 0.018UF, J, 50V	1	⚠
C521	ECWF2184JSR	P 0.18UF, J,250V	1	CT-30WX52 ⚠
C521	ECWF2224JSR	P 0.22UF, J,250V	1	CT-34WX52 ⚠
C522	ECWH20242JVY	P 2400PF, J, 2KV	1	⚠
C523	ECWH20272JVY	P 2700PF, J, 2KV	1	
C524	ECQB1224JF	P 0.22UF, J,100V	1	
C525	EEUNA1E220	E 22UF, 25V	1	
C526	ECA2EM470	E 47UF, 250V	1	
C527	ECKD2H102KB2	C 1000PF, K,500V	1	
C528	ECA1HM4R7	E 4.7UF, 50V	1	⚠
C530	ECQE2155JF	P 1.5UF, J,250V	1	
C531	ECA160V33U	E 33UF, 160V	1	
C532	ECQF6472JZ	P 4700PF, J,630V	1	⚠
C535	ECA1HM471	E 470UF, 50V	1	
C536	ECEA1HN100U	E 10UF, 50V	1	
C537	ECQB1H473JF	P 0.047UF, J, 50V	1	
C538,39	ECA1CM471	E 470UF, 16V	2	
C573	ECQB1H104JF	P 0.1UF, J, 50V	1	
C574	ECA1CM470	E 47UF, 16V	1	
C575	ECKF1H103ZF	C 0.01UF, Z, 50V	1	
C701	ECQB1H182JF	P 1800PF, J, 50V	1	CT-34WX52
C704	ECQB1H152JF	P 1500PF, J, 50V	1	CT-34WX52
C705	ECJ2XC1H221	C 220PF, Z, 50V	1	CT-34WX52
C706	ECKD3D271JBN	C 270PF, J, 2KV	1	
C709	ECQE1106KF	P 10UF, K,250V	1	
C712	ECKF1H221KB	C 220PF, K, 50V	1	CT-34WX52
C713	ECKF1H221KB	C 220PF, K, 50V	1	CT-34WX52
C714	ECA1HM2R2	E 2.2UF, 50V	1	CT-34WX52
C759	ECQM2104KZ	P 0.1UF, K,200V	1	
C801	ECQU2A104BN9	P 0.1UF, 250V	1	⚠
C802-04	ECQU2A823BN9	P 0.082UF, 250V	3	⚠
C805-07	ECKD2H472PU7	C 4700PF, P,500V	3	⚠
C808	ECQB1H102JF	P 1000PF, J, 50V	1	
C809	ECQB1H333JF	P 0.033UF, J, 50V	1	ECQB1H333JF3
C810,11	EC0S2DA821DB	E 820UF, 200V	2	⚠
C812	ECA1CM471	E 470UF, 16V	1	
C813	ECA1HM010	E 1UF, 50V	1	
C814	ECKD2H472PU7	C 4700PF, P,500V	1	⚠
C815	ECA1EM471	E 470UF, 25V	1	
C816	ECKD3A272KBP	C 2700PF, K, 1KV	1	
C817	ECQB1H332JF	P 3300PF, J, 50V	1	
C819	ECCF1H221JC	C 220PF, J, 50V	1	ECCF1H221JC4
C820	ECA1EHG221	E 220UF, 25V	1	
C821	ECKD3D272KBP	C 2700PF, K, 2KV	1	
C822	ECQB1H393JF	P 0.039UF, J, 50V	1	
C823	ECQB1H222JF	P 2200PF, J, 50V	1	
C826	ECA1VM221	E 220UF, 35V	1	
C827	ECQB1H333JF	P 0.033UF, J, 50V	1	ECQB1H333JF3
C828	ECKD3A331KBP	C 330PF, K, 1KV	1	
C830	EETHC2C102B	E 1000UF, 160V	1	⚠

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C831	ECKD3A102KBP	C 1000PF, K, 1KV	1	
C832	ECA1VHG102	E 1000UF, 35V	1	
C833	ECKD3A471KBP	C 470PF, K, 1KV	1	
C834	EEUFC1V222	E 2200UF, 35V	1	
C838	EEUFC1E272	E 2700UF, 25V	1	
C839	ECKD3A151KBP	C 150PF, K, 1KV	1	
C840	ECA1EMH471	E 470UF, 25V	1	
C841	ECA1EHG102	E 1000UF, 25V	1	
C842	ECKD3A331KBP	C 330PF, K, 1KV	1	
C843	ECA1VHG102	E 1000UF, 35V	1	
C844	ECKD3A471KBP	C 470PF, K, 1KV	1	
C845	ECA1CM101	E 100UF, 16V	1	
C846	ECA1HM010	E 1UF, 50V	1	
C847	ECA1VM470	E 47UF, 35V	1	
C848	ECA1CM101	E 100UF, 16V	1	
C850	EEUFC1E272	E 2700UF, 25V	1	
C851	ECA1CM471	E 470UF, 16V	1	
C856	ECQU2A103MN	P 0.01UF, 250V	1	⚠
C857	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C859	ECA1VHG471	E 470UF, 35V	1	
C860,61	ECKCNA222MEB	C 2200PF, M	2	⚠
C876	ECA1EM471	E 470UF, 25V	1	
C877	EEUFC1A471	E 470UF, 10V	1	
C878	ECA1EM221	E 220UF, 25V	1	
C879	EEUFC1A471	E 470UF, 10V	1	
C880	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C885	ECA1VM471	E 470UF, 35V	1	
C886	EEUFC1C471	E 470UF, 16V	1	
C887	ECA1CM471	E 470UF, 16V	1	
C888	ECA1EM101	E 100UF, 25V	1	
C889	ECA1CM101	E 100UF, 16V	1	
C890	ECA1CM221	E 220UF, 16V	1	
C891	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C892	ECA0JM221	E 220UF, 6.3V	1	
C893	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C894	ECA1VM101	E 100UF, 35V	1	
C895	ECA1CM221	E 220UF, 16V	1	
C896	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C897	ECA1EM471	E 470UF, 25V	1	
C898,99	ECJ2XB1H103K	C 0.01UF, K, 50V	2	
C901	ECQB1H103JF	P 0.01UF, J, 50V	1	
C906	ECEA1CN100U	E 10UF, 16V	1	
C952	ECA1CM221	E 220UF, 16V	1	
C953	ECA1CM471	E 470UF, 16V	1	
C955	ECQB1223KF	P 0.022UF, K,100V	1	
C956,57	ECQE2103KF	P 0.01UF, K,250V	2	
C959	ECQB1223KF	P 0.022UF, K,100V	1	
C961	ECA2CM4R7	E 4.7UF, 160V	1	
C962	ECQE2103KF	P 0.01UF, K,250V	1	
C964	ECA1CM101	E 100UF, 16V	1	
C966	ECA1CM101	E 100UF, 16V	1	
C967	ECA2CHG330	E 33UF, 160V	1	
C970,71	ECQB1H103JF	P 0.01UF, J, 50V	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C973	ECQE2103KF	P 0.01UF, K,250V	1	
C1024	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C1051	ECKF1H103ZF	C 0.01UF, Z, 50V	1	
C1052	ECA1HM470	E 47UF, 50V	1	
C1504	ECQB1H103JF	P 0.01UF, J, 50V	1	
C1505	ECA1CM470	E 47UF, 16V	1	
C1506	ECJ2XF1H102Z	C 1000PF, Z, 50V	1	
C1507	ECA1CM220	E 22UF, 16V	1	
C1508	ECKD3D101KBP	C 100PF, K, 2KV	1	
C1509	ECQM6223KZ	P 0.022UF, K,600V	1	
C1510	ECQM4223KZ	P 0.022UF, K,400V	1	
C1511	ECA1HM010	E 1UF, 50V	1	
C1512	ECKD3D102KBP	C 1000PF, K, 2KV	1	
C1513	ECKD3A471KBP	C 470PF, K, 1KV	1	
C1514	ECKD3A681KBP	C 680PF, K, 1KV	1	
C1515,16	ECKD3A152KBP	C 1500PF, K, 1KV	2	
C1517	ECKD3A151KBP	C 150PF, K, 1KV	1	
C1518	ECKD3A681KBP	C 680PF, K, 1KV	1	
C1519	ECA1VM470	E 47UF, 35V	1	CT-34WX52
C1520	ECA1HM100	E 10UF, 50V	1	
C1521	ECA0JM331	E 330UF, 6.3V	1	
C2202	ECEA1HKA2R2	E 2.2UF, 50V	1	
C2203	ECEA1HKA4R7	E 4.7UF, 50V	1	
C2204	ECSF1CE106	T 10UF, 16V	1	
C2205	ECA1HM010	E 1UF, 50V	1	
C2206	ECQB1H223JF	P 0.022UF, J, 50V	1	
C2207	ECSF1CE335	T 3.3UF, 16V	1	
C2208-10	ECJ2VB1C104K	C 0.1UF, K, 16V	3	
C2211	ECA1HM100	E 10UF, 50V	1	
C2212	ECQB1H473JF	P 0.047UF, J, 50V	1	
C2215	ECA1CM101	E 100UF, 16V	1	
C2218	ECA1HMR47	E 0.47UF, 50V	1	
C2303	ECA1EM101	E 100UF, 25V	1	
C2304	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C2330	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C2331	ECA1HM100	E 10UF, 50V	1	
C2332,33	ECJ2VF1C105Z	C 1UF, Z, 16V	2	
C2334	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C2335	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C2342	ECJ2VB1H333K	C 0.033UF, K, 50V	1	
C2343	ECEA1CN100U	E 10UF, 16V	1	
C2344	ECQB1H224JF	P 0.22UF, J, 50V	1	
C2345	EEUFC1E222	E 2200UF, 25V	1	
C2346	ECJ2XB1H561K	C 560PF, K, 50V	1	
C2347	ECJ3VB1H104K	C 0.1UF, K, 50V	1	
C2348	ECA1HM100	E 10UF, 50V	1	
C2349	ECEA1CN100U	E 10UF, 16V	1	
C2351	TCUY1C225ZFN	C 2.2UF, 16V	1	F1J1C225A083
C2352,53	EEUFC1E222	E 2200UF, 25V	2	
C2354	ECJ2XB1H471K	C 470PF, K, 50V	1	
C2355	ECJ2XC1H270J	C 27PF, J, 50V	1	
C2356	ECJ2XB1H471K	C 470PF, K, 50V	1	
C2357	ECJ2XB1H331K	C 330PF, K, 50V	1	
C2358	ECJ3VB1H104K	C 0.1UF, K, 50V	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C2359	ECJ2XB1H331K	C 330PF, K, 50V	1	
C2360	ECJ3VB1H104K	C 0.1UF, K, 50V	1	
C2361,62	ECJ2XB1H471K	C 470PF, K, 50V	2	
C2363	ECJ2XB1H682K	C 6800PF, K, 50V	1	
C2364,65	ECJ3VB1H104K	C 0.1UF, K, 50V	2	
C2366	EEUFC1E222	E 2200UF, 25V	1	
C2367	ECQB1H224JF	P 0.22UF, J, 50V	1	
C2368	ECJ2VB1H333K	C 0.033UF, K, 50V	1	
C2369	ECJ2XB1H561K	C 560PF, K, 50V	1	
C2370,71	ECEA1HN100U	E 10UF, 50V	2	
C2373	ECJ2XB1H682K	C 6800PF, K, 50V	1	
C2374,75	ECEA1HN100U	E 10UF, 50V	2	
C2378	ECJ2VF1H104Z	C 0.1UF, Z, 50V	1	
C2380	ECA1HM010	E 1UF, 50V	1	
C2386,87	ECEA1HN010U	E 1UF, 50V	2	
C2451	ECA1CM101	E 100UF, 16V	1	
C2452	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C2453	ECJ2VB1C104K	C 0.1UF, K, 16V	1	
C2454	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C2455	ECJ2VB1C104K	C 0.1UF, K, 16V	1	
C2456	ECJ2XC1H222J	C 2200PF, J, 50V	1	
C2457,58	ECJ2VB1H333K	C 0.033UF, K, 50V	2	
C2459	ECEA1CN100U	E 10UF, 16V	1	
C2460	ECJ2XB1H332K	C 3300PF, K, 50V	1	
C2461	ECEA1CN100U	E 10UF, 16V	1	
C2462	ECA1HM4R7	E 4.7UF, 50V	1	
C2463	ECEA1HKA4R7	E 4.7UF, 50V	1	
C2464	ECJ2XB1H332K	C 3300PF, K, 50V	1	
C2465,66	ECJ2VB1H333K	C 0.033UF, K, 50V	2	
C2467,68	ECJ2XB1H102K	C 1000PF, K, 50V	2	
C2469	ECJ2XB1H103K	C 0.01UF, K, 50V	1	
C2473	ECEA1HKA4R7	E 4.7UF, 50V	1	
C2474	ECA1CM101	E 100UF, 16V	1	
C2475	ECA1HM4R7	E 4.7UF, 50V	1	
C3001	ECA1CM470	E 47UF, 16V	1	
C3002,03	ECJ2VF1H103Z	C 0.01UF, Z, 50V	2	
C3004	ECA1CM470	E 47UF, 16V	1	
C3006-08	ECJ2VF1C105Z	C 1UF, Z, 16V	3	
C3009	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
C3055,56	ECJ2VF1C105Z	C 1UF, Z, 16V	2	
C3063,64	ECJ2VF1C105Z	C 1UF, Z, 16V	2	
C3071-73	ECJ2VF1C105Z	C 1UF, Z, 16V	3	
C3074	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C3077-80	ECJ2VF1C105Z	C 1UF, Z, 16V	4	
C3081	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C3084-87	ECJ2VF1C105Z	C 1UF, Z, 16V	4	
C3088	ECA1CM471	E 470UF, 16V	1	
C3089-98	ECJ2XB1H152K	C 1500PF, K, 50V	10	
C3105-08	ECJ2VF1C105Z	C 1UF, Z, 16V	4	
C3154,55	ECA1HM010	E 1UF, 50V	2	
C3158,59	ECKF1H152KB	C 1500PF, K, 50V	2	
C3804	ECQE2104KF	P 0.1UF, K,250V	1	
C3807	ECCF1H100DC	C 10PF, D, 50V	1	
C3814	ECQE2104KF	P 0.1UF, K,250V	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C3816	ECA2EM470	E 47UF, 250V	1	
C3817	ECCF1H220JC	C 22PF, J, 50V	1	
C3824	ECQE2104KF	P 0.1UF, K,250V	1	
C3826	ECA2EM101	E 100UF, 250V	1	
C3827	ECCF1H270JC	C 27PF, J, 50V	1	ECCR1H270JC5
C3833	ECA2EM101	E 100UF, 250V	1	ECA2EM101E
C3836	ECKD3D332KBN	C 3300PF, K, 2KV	1	
C4001	ECJ1VB1H392K	C 3900PF, K, 50V	1	
C4002	ECJ1VF1H103Z	C 0.01UF, Z, 50V	1	
C4004,05	ECJ1XC1H101J	C 100PF, J, 50V	2	
C4006	ECJ1XC1H220J	C 22PF, J, 50V	1	
C4007	ECJ1VF1H103Z	C 0.01UF, Z, 50V	1	
C4008	EEVHB1H1R0	E 1UF, 50V	1	
C4009	ECJ1VC1H270J	C 27PF, J, 50V	1	
C4010	ECJ1VF1H103Z	C 0.01UF, Z, 50V	1	
C4011	EEVHB1H1R0	E 1UF, 50V	1	
C4012	ECJ1XC1H101J	C 100PF, J, 50V	1	
C4013	EEVHP0J470	E 47UF, 6.3V	1	EEVHP0J470P
C4014,15	ECJ1XC1H220J	C 22PF, J, 50V	2	
C4016	EEVHP0J470	E 47UF, 6.3V	1	EEVHP0J470P
C4017	EEVHB1H1R0	E 1UF, 50V	1	
C4018	ECJ1VF1C104Z	C 0.1UF, Z, 16V	1	
C4019	ECJ1VF1H103Z	C 0.01UF, Z, 50V	1	
C4020	ECJ1XC1H470J	C 47PF, J, 50V	1	
C4021,22	ECJ1VB1C104K	C 0.1UF, K, 16V	2	
C4023	EEVHB0G221	E 220UF, 4V	1	
C4025,26	EEVHB1C470	E 47UF, 16V	2	EEVHB1C470P
C4027	EEVHB0G221	E 220UF, 4V	1	
C4028,29	ECJ1VF1H103Z	C 0.01UF, Z, 50V	2	
C4031	ECJ1VF1C104Z	C 0.1UF, Z, 16V	1	
C4032	EEVHB0J101	E 100UF, 6.3V	1	EEVHB0J101P
C4033	ECJ1VF1C104Z	C 0.1UF, Z, 16V	1	
C4034	ECJ1XC1H101J	C 100PF, J, 50V	1	
C4035	EEVHB1C220	E 22UF, 16V	1	EEVHB1C220R
C4036	ECJ1XC1H101J	C 100PF, J, 50V	1	
C4037	EEVHB1C220	E 22UF, 16V	1	EEVHB1C220R
C4039,40	ECJ1VF1C104Z	C 0.1UF, Z, 16V	2	
C4041	ECJ1XC1H101J	C 100PF, J, 50V	1	
C4042	EEVHB1C220	E 22UF, 16V	1	EEVHB1C220R
C4043-46	ECJ1XC1H101J	C 100PF, J, 50V	4	
C4047,48	EEVHB1C220	E 22UF, 16V	2	EEVHB1C220R
C4049	EEVHB1H3R3	E 4.7UF, 25V	1	EEVHB1H3R3R
C4050	EEVHB1C220	E 22UF, 16V	1	EEVHB1C220R
C4051	ECJ1XC1H471J	C 470PF, J, 50V	1	
C4052	ECJ1XC1H561J	C 560PF, J, 50V	1	
C4053	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C4054	ECJ1XC1H471J	C 470PF, J, 50V	1	
C4055	ECJ1XC1H561J	C 560PF, J, 50V	1	
C4056	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C4065	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C4066-68	TCUY0J685MBM	C 6.8UF, 6.3V	3	F1K0J685A003
C4116	EEVHB1C100	E 10UF, 16V	1	
C4200,01	ECJ1VF1A105Z	C 1UF, Z, 10V	2	
C4203-08	ECJ1VF1A105Z	C 1UF, Z, 10V	6	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C4211	EEVHB0J220	E 22UF 6.3V	1	
C4212	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C4213	ECJ2XB1A105K	C 1UF, K, 10V	1	
C4214,15	ECJ1VF1A105Z	C 1UF, Z, 10V	2	
C4217-21	ECJ1VF1A105Z	C 1UF, Z, 10V	5	
C4222	EEVHB0G101	E 100UF 4V	1	
C4223-25	ECJ1VF1A105Z	C 1UF, Z, 10V	3	
C4226	ECJ2XC1H152J	C 1500PF, J, 50V	1	
C4227	ECJ2XC1H122J	C 1200PF, J, 50V	1	ECJ2VC1H122J
C4228	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C4231	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C4236	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C4239	EEVHB0G101	E 100UF 4V	1	
C4240	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C4243	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C4244	ECJ1VB1H103K	C 0.01UF, K, 50V	1	
C4245	EEVHB1C100	E 10UF, 16V	1	
C4248	EEVHB0G101	E 100UF 4V	1	
C4252	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C4253	ECJ1VB1H103K	C 0.01UF, K, 50V	1	
C4254	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C4256	EEVHB1C100	E 10UF, 16V	1	
C4257	ECJ1VB1C103K	C 0.01UF, K, 16V	1	
C4258	EEVHB1A330	E 33UF, 10V	1	
C4259-68	ECJ1VF1A105Z	C 1UF, Z, 10V	10	
C4275	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C4278,79	ECJ1VF1A105Z	C 1UF, Z, 10V	2	
C4280	ECJ1VB1C103K	C 0.01UF, K, 16V	1	
C4281	EEVHB0G101	E 100UF 4V	1	
C4282	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C4283	EEVHB0G101	E 100UF 4V	1	
C4284-89	ECJ1VF1A105Z	C 1UF, Z, 10V	6	
C4291-93	ECJ1VB1C103K	C 0.01UF, K, 16V	3	
C4302	ECJ1VF1C104Z	C 0.1UF, Z, 16V	1	
C4305	ECJ1VF1C104Z	C 0.1UF, Z, 16V	1	
C4308	ECJ1VF1C104Z	C 0.1UF, Z, 16V	1	
C4309	EEVHB0J101	E 100UF, 6.3V	1	EEVHB0J101P
C4311	ECJ1VF1C104Z	C 0.1UF, Z, 16V	1	
C4312	EEVHB0J101	E 100UF, 6.3V	1	EEVHB0J101P
C4314	ECJ1VF1C104Z	C 0.1UF, Z, 16V	1	
C4315	EEVHB1C470	E 47UF, 16V	1	EEVHB1C470P
C4316	ECJ2VF1C474Z	C 0.47UF, Z, 16V	1	
C4317	ECJ1XC1H100D	C 10PF, D, 50V	1	
C4319	ECJ2VB1C224K	C 0.22UF, K, 16V	1	
C4343,44	ECJ1VF1A105Z	C 1UF, Z, 10V	2	
C4345,46	ECJ1XC1H050D	C 5PF, D, 50V	2	ECJ1VC1H050D
C4347	ECJ1XC1H220J	C 22PF, J, 50V	1	
C4348	ECJ1XC1H330J	C 33PF, J, 50V	1	
C4349	ECJ1XC1H050D	C 5PF, D, 50V	1	ECJ1VC1H050D
C4350	ECJ1XC1H101J	C 100PF, J, 50V	1	
C4501	ECJ1VB1C103K	C 0.01UF, K, 16V	1	
C4502	EEVHB1A330	E 33UF, 10V	1	
C4503,04	ECJ1XC1H470J	C 47PF, J, 50V	2	
C4505,06	ECJ1XC1H220J	C 22PF, J, 50V	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C4507	EEVHB1A330	E 33UF, 10V	1	
C4508	ECJ1VF1C104Z	C 0.1UF, Z, 16V	1	
C4509,10	ECJ1XC1H121J	C 120PF, J, 50V	2	
C4511,12	ECJ3XB1C105K	C 1UF, K, 16V	2	
C4513	EEVHP1E220	E 22UF, 25V	1	EEVHP1E220P
C4514	ECJ1XC1H101J	C 100PF, J, 50V	1	
C4515	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C4516	ECJ1VB1C103K	C 0.01UF, K, 16V	1	
C4518	EEVHB0G101	E 100UF 4V	1	
C4519-21	ECJ1VF1A105Z	C 1UF, Z, 10V	3	
C4522	ECJ1VB1C104K	C 0.1UF, K, 16V	1	
C4524	ECJ1VB1C104K	C 0.1UF, K, 16V	1	
C4525-27	ECJ1VF1A105Z	C 1UF, Z, 10V	3	
C4528	ECJ1VB1C103K	C 0.01UF, K, 16V	1	
C4529	EEVHB0G101	E 100UF 4V	1	
C4530-36	ECJ1VF1A105Z	C 1UF, Z, 10V	7	
C4537	EEVHB0G101	E 100UF 4V	1	
C4538-40	ECJ1VF1A105Z	C 1UF, Z, 10V	3	
C4541	EEVHB0G101	E 100UF 4V	1	
C4543-48	ECJ1VF1A105Z	C 1UF, Z, 10V	6	
C4550	EEVHB0J470	E 47UF, 6.3V	1	
C4551	ECJ1VF1C104Z	C 0.1UF, Z, 16V	1	
C4552	ECJ1VB1C103K	C 0.01UF, K, 16V	1	
C4554	ECJ1VF1C104Z	C 0.1UF, Z, 16V	1	
C4556	EEVHB0G101	E 100UF 4V	1	
C4558	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C4559	ECJ1VF1C104Z	C 0.1UF, Z, 16V	1	
C4560	EEVHB0G101	E 100UF 4V	1	
C4564	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C4565	ECJ1VF1C104Z	C 0.1UF, Z, 16V	1	
C4566-80	ECJ1VF1A105Z	C 1UF, Z, 10V	15	
C4581	ECJ1VB1C104K	C 0.1UF, K, 16V	1	
C4582	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C4585	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C4586	ECJ1VF1C104Z	C 0.1UF, Z, 16V	1	
C4587	ECJ2XB1A105K	C 1UF, K, 10V	1	
C4588-90	ECJ1VF1A105Z	C 1UF, Z, 10V	3	
C4591	ECJ1VF1C104Z	C 0.1UF, Z, 16V	1	
C4592,93	ECJ1VF1A105Z	C 1UF, Z, 10V	2	
C4594	EEVHB0G101	E 100UF 4V	1	
C4595-97	ECJ1VF1A105Z	C 1UF, Z, 10V	3	
C4598	ECJ1VB1C103K	C 0.01UF, K, 16V	1	
C4599,00	ECJ1VF1A105Z	C 1UF, Z, 10V	2	
C4602	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C4603	ECJ1XC1H330J	C 33PF, J, 50V	1	
C4604	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C4605	ECJ1VB1C103K	C 0.01UF, K, 16V	1	
C4606	ECJ1XC1H680J	C 68PF, J, 50V	1	
C4607	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C4608	ECJ1XC1H470J	C 47PF, J, 50V	1	
C4609	ECJ1XC1H060C	C 6PF, C, 50V	1	
C4610,11	ECJ1VF1A105Z	C 1UF, Z, 10V	2	
C4612	ECJ1XC1H330J	C 33PF, J, 50V	1	
C4613	ECJ1VF1A105Z	C 1UF, Z, 10V	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C4614	ECJ1XC1H680J	C 68PF, J, 50V	1	
C4615	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C4616	ECJ1XC1H331J	C 330PF, J, 50V	1	
C4617	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C4618	ECJ1VB1C103K	C 0.01UF, K, 16V	1	
C4619	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C4620	EEVHB0G101	E 100UF 4V	1	
C4621-38	ECJ1VF1A105Z	C 1UF, Z, 10V	18	
C4640-43	ECJ1VF1A105Z	C 1UF, Z, 10V	4	
C4644	ECJ1VB1C103K	C 0.01UF, K, 16V	1	
C4645	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C4647	EEVHB1C100	E 10UF, 16V	1	
C4648	EEVHB0G101	E 100UF 4V	1	
C4649	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
C4653	EEVHB0G101	E 100UF 4V	1	
C4655	ECJ1VF1C104Z	C 0.1UF, Z, 16V	1	
C4656	ECJ1VB1E223K	C 0.22UF, K, 25V	1	
C4658,59	ECJ1VB1C103K	C 0.01UF, K, 16V	2	
C4661	ECJ1VB1C103K	C 0.01UF, K, 16V	1	
C4662	ECHU1C223JA5	P 0.022UF, 16V	1	
C4663	ECJ1VB1C103K	C 0.01UF, K, 16V	1	
C4664-67	ECJ1VB1C104K	C 0.1UF, K, 16V	4	
C4669	ECJ1VB1C103K	C 0.01UF, K, 16V	1	
C4670	EEVHB1C100	E 10UF, 16V	1	
C4672	ECJ1VB1C103K	C 0.01UF, K, 16V	1	
C4673	EEVHB1C100	E 10UF, 16V	1	
C4674	EEVHB1A330	E 33UF, 10V	1	
C4675,76	ECJ1XC1H470J	C 47PF, J, 50V	2	
C4677,78	ECJ1XC1H220J	C 22PF, J, 50V	2	
C4679	ECHU1C223JA5	P 0.022UF, 16V	1	
C4680,81	ECJ1XC1H121J	C 120PF, J, 50V	2	
C4682	EEVHP1E220	E 22UF, 25V	1	EEVHP1E220P
C4683,84	ECJ3XB1C105K	C 1UF, K, 16V	2	
C4685	ECJ1XC1H680J	C 68PF, J, 50V	1	
C4686	EEVHB0J470	E 47UF, 6.3V	1	
C4687	ECJ1XC1H330J	C 33PF, J, 50V	1	
C4688	ECJ1VF1C104Z	C 0.1UF, Z, 16V	1	
C4690	EEVHB0G101	E 100UF 4V	1	
C4691	ECJ1VB1C103K	C 0.01UF, K, 16V	1	
C4692	EEVHB0G101	E 100UF 4V	1	
C4693	ECJ1VF1C104Z	C 0.1UF, Z, 16V	1	
C4694	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C4695	EEVHB0G101	E 100UF 4V	1	
C4699	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C4801-03	ECJ1VF1C104Z	C 0.1UF, Z, 16V	3	
C4805	ECA1CM470	E 47UF, 16V	1	
C4806	ECQV1H334JM	P 0.33UF, J, 50V	1	
C4808	ECJ1VF1C104Z	C 0.1UF, Z, 16V	1	
C4820	EEVHB1A330	E 33UF, 10V	1	
C4821	EEVHB1C100	E 10UF, 16V	1	
C4822	ECJ1VB1C103K	C 0.01UF, K, 16V	1	
C4823	EEVHB1C100	E 10UF, 16V	1	
C4824	ECJ1VB1C103K	C 0.01UF, K, 16V	1	
C4825-28	ECJ1VB1C104K	C 0.1UF, K, 16V	4	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C4831-33	ECJ1VB1C103K	C 0.01UF, K, 16V	3	
C4834	ECJ1VB1E223K	C 0.22UF, K, 25V	1	
C4835	ECJ1VB1C103K	C 0.01UF, K, 16V	1	
C4836,37	ECJ1VF1C104Z	C 0.1UF, Z, 16V	2	
C4838-45	ECJ1VF1A105Z	C 1UF, Z, 10V	8	
C4846	ECJ1VF1C104Z	C 0.1UF, Z, 16V	1	
C4848	ECJ1VF1C104Z	C 0.1UF, Z, 16V	1	
C4849	EEVHB0G101	E 100UF 4V	1	
C4850	ECJ1VB1C103K	C 0.01UF, K, 16V	1	
C4851	ECJ2XC1H102J	C 1000PF, J, 50V	1	
C4852	ECJ3XB1C105K	C 1UF, K, 16V	1	
C4853	ECJ1VB1C103K	C 0.01UF, K, 16V	1	
C4867,68	EEVHB1C470	E 47UF, 16V	2	EEVHB1C470P
C4869,70	ECJ1VF1A105Z	C 1UF, Z, 10V	2	
C4897	ECJ1VF1H103Z	C 0.01UF, Z, 50V	1	
C4908	ECJ1XC1H101J	C 100PF, J, 50V	1	
D1	TJS3A9680	7P CONNECTOR	1	K1KA07A00095
D2	TJS5A9470	5P CONNECTOR	1	K1KB05A00025
D3	TJS5A9420	8P CONNECTOR	1	K1KB08A00054
D4,D5	TJSF19916	16P CONNECTOR	2	K1KA16A00119
D006	MA4300H	ZENER DIODE	1	MAZ43000H
D6,D7	TJSF19916	16P CONNECTOR	2	K1KA16A00119
D009	MA165	DIODE	1	MA2C165
D010	MA4030M	ZENER DIODE	1	MAZ40300M
D10	TJS3A9660	5P CONNECTOR	1	K1KA05A00138
D11,12	TJS5A9420	8P CONNECTOR	2	K1KB08A00054
D13	TJSF51701	CONNECTOR	1	K1ZZ00001205
D14	K1KA02A00188	2P MINI CONNECTOR	1	
D014	LN21RCPHL	LED (RED)	1	
D16	TJS3A9630	CONNECTOR	1	K1KA03A00183
D50	K1KA02A00188	2P MINI CONNECTOR	1	
D402	MA4270M	ZENER DIODE	1	MAZ42700M
D405,06	ERA15-02	DIODE	2	B0EAKM000016
D407,08	MA165	DIODE	2	MA2C165
D410-12	MA165	DIODE	3	MA2C165
D452	MA165	DIODE	1	MA2C165
D468	MA4062M	ZENER DIODE	1	MAZ40620M
D477	MA29WB	DIODE	1	
D501	D1NL40V70	DIODE	1	B0HALP000002
D502	MA4150M	ZENER DIODE	1	MAZ41500M
D503	B0KZ00000001	DIODE	1	
D505	MA4033M	ZENER DIODE	1	MAZ40330M
D509	MA165	DIODE	1	MA2C165
D510	MA4082M	ZENER DIODE	1	MAZ40820M
D511,12	D1NL40V70	DIODE	2	B0HALP000002 ⚠
D515	D1NL40V70	DIODE	1	B0HALP000002
D516	MA4051L	ZENER DIODE	1	MAZ40510L
D517,18	D1NL40V70	DIODE	2	B0HALP000002
D520	MA167	DIODE	1	MA2C167
D550	TVSRU3N	DIODE	1	B0HAMP000042
D703	D1NL40V70	DIODE	1	B0HALP000002
D708	MA4150M	ZENER DIODE	1	CT-34WX52
D711	ERA22-06	DIODE	1	CT-34WX52

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D751	MA165	DIODE	1	CT-34WX52
D761	MA165	DIODE	1	MA2C165
D801	RBV-608	DIODE	1	B0FBAT000002 ⚠
D802	MA700A	DIODE	1	MA2C700A
D803	D4DDF1R50001	THERMISTOR	1	⚠
D806	AU01Z	DIODE	1	B0HAGM000011
D807	MA165	DIODE	1	MA2C165
D809	ERZV10D391	VARISTOR	1	⚠
D811	ERA15-01	DIODE	1	B0EAKL000006
D814-16	MA165	DIODE	3	MA2C165
D817	MA4220L	ZENER DIODE	1	
D818	MA4200M	ZENER DIODE	1	MAZ42000M
D824	TMPG10G3	DIODE	1	B0BA01000046 ⚠
D825	FMGG2CS	DIODE	1	B0HAPV000011 ⚠
D826	MA6D90	DIODE	1	MA3D690
D827	S2L20U	DIODE	1	B0HANM000015
D828	MA6D90	DIODE	1	MA3D690
D829	S2L20U	DIODE	1	B0HANM000015
D830	MA6D90	DIODE	1	MA3D690
D831,32	MA165	DIODE	2	MA2C165
D833	MA4110H	ZENER DIODE	1	MAZ41100H
D834	AU02Z	DIODE	1	B0HAKM000004
D836	AU02Z	DIODE	1	B0HAKM000004
D839	MA4039M	ZENER DIODE	1	MAZ40390M
D840	MA165	DIODE	1	MA2C165
D845	MA165	DIODE	1	MA2C165
D846	MA4180M	ZENER DIODE	1	MAZ41800M
D847	MA4300M	ZENER DIODE	1	MAZ43000M
D848	MA165	DIODE	1	MA2C165
D850,51	MA165	DIODE	2	MA2C165
D861,62	TVSA81004	DIODE	2	B0JAME000009
D874,75	RK34	DIODE	2	
D876,77	MA165	DIODE	2	MA2C165
D878	RK34	DIODE	1	
D881	TMPG10G3	DIODE	1	B0BA01000046
D883	TMPG10G3	DIODE	1	B0BA01000046
D884	TMPG12G3	DIODE	1	
D889	MA165	DIODE	1	MA2C165
D893,94	MA165	DIODE	2	MA2C165
D898,99	MA165	DIODE	2	MA2C165
D954	MA165	DIODE	1	MA2C165
D957	MA165	DIODE	1	MA2C165
D1001	LN81RPH	LED (ORANGE)	1	
D1501	MA4075H	ZENER DIODE	1	MAZ40750H
D1503	MA4030H	ZENER DIODE	1	MAZ40300H ⚠
D1504	MA4020H	ZENER DIODE	1	MAZ40200H
D1505	RP1H	DIODE	1	B0HACW000001
D1508	MA165	DIODE	1	MA2C165
D1509,10	AU02A	DIODE	2	B0HAKR000005
D1513	MA165	DIODE	1	MA2C165
D2320,21	MA4390M	ZENER DIODE	2	
D2322	MA152K	DIODE	1	MA3X152K

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D2324,25	MA152K	DIODE	2	MA3X152K
D2326,27	MA4270M	ZENER DIODE	2	MAZ42700M
D3051-75	MA3110M	ZENER DIODE	25	MAZ31100M
D3077-82	MA3110M	ZENER DIODE	6	MAZ31100M
D3084-88	MA3110M	ZENER DIODE	5	MAZ31100M
D3151-56	MTZJ15A	ZENER DIODE	6	
D3159,60	MTZJ15A	ZENER DIODE	2	
D3809	ERZV07D361	VARISTOR	1	
D3824-26	MA4120M	ZENER DIODE	3	MAZ41200M
D3831-36	D1NL40V70	DIODE	6	B0HALP000002
D4000	MA3030L	ZENER DIODE	1	
D4001	MA704	DIODE	1	MA3X704
D4002	MA3036H	ZENER DIODE	1	MAZ30360H
D4008	MA152WK	ZENER DIODE	1	MA3X152E
D4501-03	ERJ3GEY0R00	M 0 OHM, 1/16W	3	
D4507	1SS355	DIODE	1	B0ACCK000005
D4508	MA704	DIODE	1	MA3X704
D4805,06	MA165	DIODE	2	MA2C165
DEG2	TJS3A9630	CONNECTOR	1	K1KA03A00183
DG1-G3	K1KB30A00092	30P CONNECTOR	3	
F801	XBA1C63NU100	FUSE 125V 6.3A	1	K5D632AD0002 ⚠
F801-1,-2	EYF-52BC	FUSE HOLDER	2	
G1-G3	K1KA10A00215	10P CONNECTOR	3	
G4	TJS3A9660	5P CONNECTOR	1	K1KA05A00138
G6	TJSF19916	16P CONNECTOR	1	K1KA16A00119
G18	TJS3A9650	4P CONNECTOR	1	K1KA04A00194
IC432,33	AN6562S	LINEAR IC	2	
IC451	LA7876N	IC	1	
IC500	LA6510	LINEAR IC	1	C0AABB000107
IC511	AN6914S	LINEAR IC	1	
IC751	AN6914S	LINEAR IC	1	
IC752	IR2117	IC	1	CT-34WX52
IC801	AN8029	LINEAR IC	1	⚠
IC802	SE130N	LINEAR IC	1	⚠
IC804	TVSS1WBS20	DIODE	1	B0EBKM000016
IC811	0N3171R	PHOTO COUPLER	1	CNC1S171R ⚠
IC871	SI-8050S	HYBRID IC	1	C0DAAHH00013
IC872	C0DAAZG00006	IC	1	
IC875	SI-8090S	HYBRID IC	1	C0DAAHH00015
IC876	PQ12RD1B	LINEAR IC	1	C0DAZJG00004
IC1004	TVRJ789	ROM IC	1	C3EBJC000037
IC1501	AN6562S	LINEAR IC	1	
IC2201	AN5849S	IC	1	
IC2302	TDA7490	IC	1	C1AA00000645
IC2304	BA15218F	LINEAR IC	1	
IC2451	C1BB00000621	IC	1	
IC3003	CXA2069Q	LINEAR IC	1	C1AB00000459
IC3801-03	C1AA00000648	IC	3	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
IC4001	PST9128NR	IC (LOGIC)	1	C0EBE0000066
IC4002	TVRJ734	ROM IC	1	
IC4005	C0CBCBD00004	IC	1	
IC4503-05	C0CBCBD00006	IC	3	
IC4506	C0FBAF000040	IC	1	
IC4507	C3HBKZ000001	IC	1	
IC4508	PQ07VZ012ZP	IC	1	C0DBEZG00004
IC4509	PST9128NR	IC (LOGIC)	1	C0EBE0000066
IC4511	C1ZBZ0001989	IC	1	
IC4512	C0CBCAD00006	IC	1	
IC4513	C0CBCBD00006	IC	1	
IC4515	AN5876S-E1V	IC	1	
IC4517	PQ07VZ012ZP	IC	1	C0DBEZG00004
IC4518	C1ZBZ0001988	IC	1	
IC4519	C0CBCAD00006	IC	1	
IC4520	C0CBCBD00006	IC	1	
IC4521	TC74HC221AF	MOS IC (CMOS S/LOGIC)	1	C0JBAM000065
IC4525	C3ABPJ000017	IC	1	
IC4526	C0CBCBD00006	IC	1	
IC4529	AN5876S-E1V	LINEAR IC	1	
IC4530	TC74HC221AF	MOS IC (CMOS S/LOGIC)	1	C0JBAM000065
IC4540	TC7WU04FU	IC	1	C0JBAB000339
IC4802	C1AB00001139	IC	1	
IC4803	LA6510	LINEAR IC	1	C0AABB000107
JA1-A3	ERJ6GEY0R00	M 0 OHM,J,1/10W	3	
JA9	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
JA15-24	ERJ6GEY0R00	M 0 OHM,J,1/10W	10	
JK3001	TJBA193	TERMINAL BOARD	1	
JK3151	TJBA187	TERMINAL BOARD	1	
JK3804	TJSC01100	CRT SOCKET	1	K3B10CA00039 ⚠
JS006	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
JS27-29	ERJ6GEY0R00	M 0 OHM,J,1/10W	3	
JS95	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
JS1501	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
JS3029	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
JS4004-06	ERJ3GEY0R00	M 0 OHM, 1/16W	3	
JS4007	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
JS4008,09	ERJ3GEY0R00	M 0 OHM, 1/16W	2	
JS4011	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
JS4169	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
JS4539	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
JS4541-46	ERJ3GEY0R00	M 0 OHM, 1/16W	6	
JS4556	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
JS4601	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
JS4603-13	ERJ6GEY0R00	M 0 OHM,J,1/10W	11	
JS4616-21	ERJ6GEY0R00	M 0 OHM,J,1/10W	6	
JS4623,24	ERJ6GEY0R00	M 0 OHM,J,1/10W	2	
JS4628	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
JS4630-34	ERJ6GEY0R00	M 0 OHM,J,1/10W	5	
JS4642-48	ERJ6GEY0R00	M 0 OHM,J,1/10W	7	
JS4650	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
JS4651	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
JS4652-66	ERJ6GEY0R00	M 0 OHM,J,1/10W	15	
JS4667-69	ERJ3GEY0R00	M 0 OHM, 1/16W	3	
K6	TJSF20016	16P CONNECTOR	1	K1KB16A00050
L1	TJS3A9880	8P CONNECTOR	1	K1KA08A00179
L2	TJS3A9640	3P CONNECTOR	1	K1KA03A00171
L3	TJS3A9680	7P CONNECTOR	1	K1KA07A00095
L009,10	ELESE330JA	PEAKING COIL	2	
L10	TJSF51701	CONNECTOR	1	K1ZZ00001205
L011	ELESE330JA	PEAKING COIL	1	
L11	TJSF41601	CONNECTOR	1	K1ZZ00001074
L012	ELESE330JA	PEAKING COIL	1	
L401	EXCELSA39	BEAD CHOKE	1	
L431	ELESE101KA	PEAKING COIL	1	
L432	EXCELDR25C	BEAD CHOKE	1	
L500	TALL08NR56MA	INDUCTION COIL	1	G0A5R6G00001
L503	TALL13N103JB	INDUCTION COIL	1	G0A103B00001
L506	EXCELSA24	BEAD CHOKE	1	
L551	ELH5L7721	LINEARITYCOIL	1	⚠
L553	ELH5L8111	LINEARITYCOIL	1	⚠
L711	ELESE100KA	PEAKING COIL	1	
L751	ELC18B121F	CHOKE COIL	1	
L752	TALFP15B152K	INDUCTION COIL	1	
L759	EXCELSA35	BEAD CHOKE	1	
L801	G0B650H00002	CHOKE COIL	1	⚠
L802,03	G0B332H00002	CHOKE COIL	2	⚠
L804	G0B102H00009	CHOKE COIL	1	⚠
L807	EXCELDR35C	BEAD CHOKE	1	
L812	EXCELSA35	BEAD CHOKE	1	
L813	EXCELSA39	BEAD CHOKE	1	
L814	TALL08N101KA	INDUCTION COIL	1	G0A101EA0008
L815,16	EXCELSA39	BEAD CHOKE	2	
L819,20	EXCELSA24	BEAD CHOKE	2	
L821	EXCELDR35C	BEAD CHOKE	1	
L824	EXCELDR35C	BEAD CHOKE	1	
L825	G0A151D00002	CHOKE COIL	1	
L826	TLUADTB820K	PEAKING COIL	1	G0A820GA0017
L827	TALL08N470KA	INDUCTION COIL	1	G0A470GA0011
L829	EXCELDR35C	BEAD CHOKE	1	
L850	ELESE101JA	PEAKING COIL	1	
L875	G0A151ZA0004	CHOKE COIL	1	
L876	TALFP15B221K	INDUCTION COIL	1	
L878	TALFP15B221K	INDUCTION COIL	1	
L882	G0A470F00004	CHOKE COIL	1	
L885	G0B220G00001	CHOKE COIL	1	
L886	TALL08N221KA	INDUCTION COIL	1	G0A221DA0010
L887	G0A330G00010	CHOKE COIL	1	
L888-90	EXCELSA24	BEAD CHOKE	3	
L891,92	G0A101E00003	CHOKE COIL	2	
L904	TLTABT560K	PEAKING COIL	1	G0C560KA0021
L957	EXCELSA35	BEAD CHOKE	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
L1501	TALFP15B152K	INDUCTION COIL	1	
L2201	ELESE100JA	PEAKING COIL	1	
L2331,32	ELC12E390	CHOKE COIL	2	
L2334,35	EXCELDR35C	BEAD CHOKE	2	
L2336,37	G0B800H00001	CHOKE COIL	2	
L2341,42	G0A330G00010	CHOKE COIL	2	
L3001	EXCELSA35	BEAD CHOKE	1	
L3801-03	ELESE1R0JA	PEAKING COIL	3	
L3810	EXCELSA24	BEAD CHOKE	1	
L4301	TALC168T100K	CHIP INDUCTOR COIL	1	
L4501	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
L4502	TLTAZ100K	PEAKING COIL	1	G1C100KA0002
L4503	TALC168T1R5K	CHIP INDUCTOR COIL	1	
L4504,05	TALC168T5R6K	CHIP INDUCTOR COIL	2	
L4506-12	ERJ6GEY0R00	M 0 OHM,J,1/10W	7	
L4513	TALC168T3R3K	CHIP INDUCTOR COIL	1	
L4514-21	ERJ6GEY0R00	M 0 OHM,J,1/10W	8	
L4523-26	ERJ6GEY0R00	M 0 OHM,J,1/10W	4	
L4527	TALC168T4R7K	CHIP INDUCTOR COIL	1	
L4528,29	TALC168T5R6K	CHIP INDUCTOR COIL	2	
L4530	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
L4532-36	ERJ6GEY0R00	M 0 OHM,J,1/10W	5	
L4538	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
L4539	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
L4541	TLTAZ100K	PEAKING COIL	1	G1C100KA0002
L4542	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
L4544,45	ERJ6GEY0R00	M 0 OHM,J,1/10W	2	
L4801	ELJPA101KF	CHIP INDUCTOR	1	
L4802	TLTAZ100K	PEAKING COIL	1	G1C100KA0002
L4808	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
L5001	EXCELSA35	BEAD CHOKE	1	
LC4514,15	TLK20LFA473M	EMI FILTER	2	
LC4522	TLK212T256AL	EMI FILTER	1	J0HAAB000012
LC4525,26	TLK212T256AL	EMI FILTER	2	J0HAAB000012
LC4535	TLK20LFA223M	EMI FILTER	1	J0HABB000003
LC4536-38	TLK20LFA473M	EMI FILTER	3	
LC4540,41	TLK212T256AL	EMI FILTER	2	J0HAAB000012
LC4568	TLK212T256AL	EMI FILTER	1	J0HAAB000012
P1	TJS3A9630	CONNECTOR	1	K1KA03A00183
P2	TJS3A9260	5P CONNECTOR	1	K1KA05B00085
P3	TJS3A9140	CONNECTOR	1	K1KA08B00121
P5	K1KA02A00188	2P MINI CONNECTOR	1	
P11,12	TJS3A9150	CONNECTOR	2	K1KA08B00122
Q007	2SD601A-R	TRANSISTOR	1	2SD0601AR
Q404	2SD601A	TRANSISTOR	1	2SD0601A
Q405	2SA1309A	TRANSISTOR	1	2SA13090WA
Q406	2SD601A-R	TRANSISTOR	1	2SD0601AR
Q501	2SK2962	FET	1	
Q502	2SK2847	FET	1	B1DEFU000002
Q503	2SD601A-R	TRANSISTOR	1	2SD0601AR
Q509,10	2SC1473	TRANSISTOR	2	2SC14730E

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
Q512	2SC3311A	TRANSISTOR	1	2SC3311AW
Q513	2SD601A-R	TRANSISTOR	1	2SD0601AR
Q551	2SC5612	TRANSISTOR	1	
Q562	2SC1473	TRANSISTOR	1	2SC14730E
Q751	2SK2538000LB	FET	1	
Q752	2SD601A	TRANSISTOR	1	CT-34WX52
Q754	2SD601A	TRANSISTOR	1	CT-34WX52
Q755	B1DEGG000010	FET	1	CT-34WX52
Q801	2SK2917	FET	1	B1DEGQ000003 ⚠
Q802,03	2SC3311A	TRANSISTOR	2	2SC3311AW
Q804	2SA1309A	TRANSISTOR	1	2SA13090WA
Q805,06	2SC3311A	TRANSISTOR	2	2SC3311AW
Q808	2SC3311A	TRANSISTOR	1	2SC3311AW
Q854	2SA19610Q0HW	TRANSISTOR	1	
Q860-63	2SD601A-R	TRANSISTOR	4	2SD0601AR
Q880	2SB709A	TRANSISTOR	1	2SB0709A
Q902	2SC3311A	TRANSISTOR	1	2SC3311AW
Q951	2SA564A	TRANSISTOR	1	2SA0564AW
Q952	2SC3311A	TRANSISTOR	1	2SC3311AW
Q955	2SB1569A	TRANSISTOR	1	
Q956	2SD2400A	TRANSISTOR	1	
Q961	2SB621A	TRANSISTOR	1	2SB0621AW
Q963	2SD592A	TRANSISTOR	1	2SD0592AW
Q1501,02	B1DEDR000005	FET	2	
Q1503	2SC5460	TRANSISTOR	1	
Q1504,05	2SC3311A	TRANSISTOR	2	2SC3311AW
Q1506	2SD601A-R	TRANSISTOR	1	2SD0601AR
Q2301,02	2SB709A	TRANSISTOR	2	2SB0709A
Q2304	2SD601A-R	TRANSISTOR	1	2SD0601AR
Q2306	2SD601A-R	TRANSISTOR	1	2SD0601AR
Q2307	2SB709A	TRANSISTOR	1	2SB0709A
Q2313,14	2SD601A-R	TRANSISTOR	2	2SD0601AR
Q2334,35	2SD601A-R	TRANSISTOR	2	2SD0601AR
Q2336	2SB709A	TRANSISTOR	1	2SB0709A
Q2337-39	2SD601A-R	TRANSISTOR	3	2SD0601AR
Q2340	2SB709A	TRANSISTOR	1	2SB0709A
Q2451,52	2SD601A-R	TRANSISTOR	2	2SD0601AR
Q3026	2SB709A	TRANSISTOR	1	2SB0709A
Q3027	2SD601A-R	TRANSISTOR	1	2SD0601AR
Q3157,58	2SC3311A	TRANSISTOR	2	2SC3311AW
Q4004-16	2SD601A-R	TRANSISTOR	13	2SD0601AR
Q4017	2SB709A	TRANSISTOR	1	2SB0709A
Q4018,19	2SD601A-R	TRANSISTOR	2	2SD0601AR
Q4201	2SB709A	TRANSISTOR	1	2SB0709A
Q4502-04	2SD601A-R	TRANSISTOR	3	2SD0601AR
Q4505-08	2SB709A	TRANSISTOR	4	2SB0709A
Q4509-11	2SD601A-R	TRANSISTOR	3	2SD0601AR
Q4512	2SB709A	TRANSISTOR	1	2SB0709A
Q4514,15	2SB709A	TRANSISTOR	2	2SB0709A
Q4518	2SB709A	TRANSISTOR	1	2SB0709A
Q4519-24	2SD601A-R	TRANSISTOR	6	2SD0601AR
Q4525-27	2SB709A	TRANSISTOR	3	2SB0709A
Q4534	2SD601A-R	TRANSISTOR	1	2SD0601AR
Q4540-42	2SD601A-R	TRANSISTOR	3	2SD0601AR

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
Q4545-47	2SD601A-R	TRANSISTOR	3	2SD0601AR
Q4551	2SB709A	TRANSISTOR	1	2SB0709A
Q4552,53	2SD601A-R	TRANSISTOR	2	2SD0601AR
Q4554,55	2SB709A	TRANSISTOR	2	2SB0709A
Q4801-04	2SB709A	TRANSISTOR	4	2SB0709A
Q4805,06	2SD601A-R	TRANSISTOR	2	2SD0601AR
R050-53	ERJ6GEYJ101	M 100 OHM,J,1/10W	4	
R069	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
R078	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R079	ERJ6GEYJ223	M 22KOHM,J,1/10W	1	
R080	ERJ6GEYJ220	M 22 OHM,J,1/10W	1	
R081	ERDS2TJ100	C 10 OHM, J,1/4W	1	
R407	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R408	ERDS2TJ272	C 2.7KOHM, J,1/4W	1	
R409	ERJ6GEYJ563	M 56KOHM,J,1/10W	1	
R410	ERJ6GEYJ224	M 220KOHM,J,1/10W	1	
R411	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R412	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R413	ERDS2TJ104	C 100KOHM, J,1/4W	1	
R414	ERX1SJR82P	M0.82 OHM, J, 1W	1	
R415	ERG3FJ331H	M 330 OHM, J, 3W	1	
R416	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
R417	ERJ6GEYJ272	M 2.7KOHM,J,1/10W	1	
R418	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R419	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R420	ERJ6GEYJ272	M 2.7KOHM,J,1/10W	1	
R421	ERJ6ENF1602	M 16KOHM, 1/10W	1	
R422	ERJ6ENF2001	M 2KOHM, 1/10W	1	
R423	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R424	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R425	ERDS1FJ1R0	C 1 OHM, J,1/2W	1	ERDS1FJ1R0P ⚠
R426	ERJ6GEYJ123	M 12KOHM,J,1/10W	1	
R427	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R428	ER0S2CKF9761	M9.76KOHM, F,1/4W	1	
R429	ERJ6GEYJ182	M 1.8KOHM,J,1/10W	1	
R430	ER0S2CKF1500	M 150 OHM, F,1/4W	1	
R431	ER0S2CKF2000	M 200 OHM, F,1/4W	1	
R434	ERX12SJ1R8	M 1.8 OHM, J,1/2W	1	
R435	ERX12SJ2R2P	M 2.2 OHM, J,1/2W	1	
R436	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R440	ERG1SJ102P	M 1KOHM, J, 1W	1	
R441	ERX1SJ1R0P	M 1 OHM, J, 1W	1	
R444	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R445	ERX1SJ1R0P	M 1 OHM, J, 1W	1	
R447	ERJ6ENF6800	M 680 OHM, 1/10W	1	
R449	ERJ6ENF3901	M 3.9KOHM, 1/10W	1	
R463	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
R464	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R465	ERJ6ENF2201	M 2.2KOHM, 1/10W	1	
R470	ERJ6GEYJ683	M 68KOHM,J,1/10W	1	
R471	ERJ6ENF1003	M 100KOHM, 1/10W	1	
R472	ERJ6ENF1872	M18.7KOHM, 1/10W	1	
R476	ERJ6GEYJ823	M 82KOHM,J,1/10W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R479,80	ERJ6GEY0R00	M 0 OHM,J,1/10W	2	
R495	ERJ6GEYJ224	M 220KOHM,J,1/10W	1	
R501	ERDS2TJ104	C 100KOHM, J,1/4W	1	
R502	ERDS2TJ680	C 68 OHM, J,1/4W	1	
R503	ERG3FJ181H	M 180 OHM, J, 3W	1	
R504	ERG1SJ102P	M 1KOHM, J, 1W	1	
R505	ERG1SJ100P	M 10 OHM, J, 1W	1	
R510	ERG2FJ331H	M 330 OHM, J, 2W	1	
R512	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R513	ERC12GK103	S 10KOHM, K,1/2W	1	
R514	ER0S2CKF3242	M32.4KOHM, F,1/4W	1	
R515	ER0S2CKF2612	M26.1KOHM, F,1/4W	1	
R516	ERDS2TJ101	C 100 OHM, J,1/4W	1	
R517	ERG1SJ103P	M 10KOHM, J, 1W	1	
R518	ERDS1FJ1R5	C 1.5 OHM, J,1/2W	1	⚠
R519A	ERQ1CZKPR22S	F0.22 OHM, J, 1W	1	⚠
R520	ERQ14AJ2R2P	F 2.2 OHM, J,1/4W	1	⚠
R521	ERJ6ENF6041	M6.04KOHM, 1/10W	1	⚠
R522	ERJ6ENF2321	M2.32KOHM, 1/10W	1	⚠
R524	EVMEASA00B14	CONTROL 10KOHMB 0.3W	1	
R525	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R526	ERQ12HJ1R0	F 1 OHM, J,1/2W	1	
R527	ERDS2TJ472	C 4.7KOHM, J,1/4W	1	
R528	ERQ1CJP120S	F 12 OHM, J, 1W	1	
R529	ERDS2TJ273	C 27KOHM, J,1/4W	1	
R530	ERDS2TJ123	C 12KOHM, J,1/4W	1	
R531	ERDS2TJ221	C 220 OHM, J,1/4W	1	
R532,33	ERDS1FJ1R0	C 1 OHM, J,1/2W	2	ERDS1FJ1R0P ⚠
R534	ER0S2CKF9102	M 91KOHM, F,1/4W	1	EROS2CKF9102
R535	ERJ6GEYJ562	M 5.6KOHM,J,1/10W	1	
R536	ERDS2TJ101	C 100 OHM, J,1/4W	1	
R538	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R540	ERJ6GEYJ272	M 2.7KOHM,J,1/10W	1	
R541	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R550	ER0S2CKF5361	M5.36KOHM, F,1/4W	1	EROS2CKF5361
R560	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R561	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R562	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R586	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R587	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R588	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R589	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R590,91	ERJ6GEY0R00	M 0 OHM,J,1/10W	2	
R595	ERDS2TJ273	C 27KOHM, J,1/4W	1	
R701	ERJ6GEYJ153	M 15KOHM,J,1/10W	1	CT-34WX52
R702,03	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R704	ERJ6GEYJ202	M 2KOHM,J,1/10W	1	CT-34WX52
R705	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R706	ERJ6GEYJ152	M 1.5KOHM,J,1/10W	1	
R707	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	CT-34WX52
R708	ERJ6GEYJ183	M 18KOHM,J,1/10W	1	CT-34WX52
R709	ERDS1FJ680	C 68 OHM, J,1/2W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R711	ERJ6GEYJ682	M 6.8KOHM,J,1/10W	1	CT-34WX52
R712	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	CT-34WX52
R714	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	CT-34WX52
R715	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	CT-34WX52
R717	ERF5AK4R7	W 4.7 OHM, K, 5W	1	
R718	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R720	ERJ6GEYJ152	M 1.5KOHM,J,1/10W	1	CT-34WX52
R787	ERQ14AJ220	F 22 OHM,J,1/4W	1	CT-34WX52
R788	ERDS2T473	C 47KOHM,J,1/4W	1	CT-34WX52
R800	ERU5TCK1R5T	F 1.5 OHM, 5W	1	⚠
R801	ERC14GK824	S 820KOHM, 1/4W	1	
R803	ERDS2TJ680	C 68 OHM, J,1/4W	1	
R806	ERDS2TJ473	C 47KOHM, J,1/4W	1	
R807	ERDS2TJ820	C 82 OHM, J,1/4W	1	
R808	ERDS2TJ680	C 68 OHM, J,1/4W	1	
R809	ERDS2TJ472	C 4.7KOHM, J,1/4W	1	
R810	ERDS2TJ473	C 47KOHM, J,1/4W	1	
R811	ERDS2TJ472	C 4.7KOHM, J,1/4W	1	
R812	ERDS2TJ473	C 47KOHM, J,1/4W	1	
R813	ERDS1FJ152	C 1.5KOHM, J,1/2W	1	
R814	ERG3FJ223	M 22KOHM, J, 3W	1	
R815	ERDS2TJ331	C 330 OHM, J,1/4W	1	
R816	ERDS2TJ471	C 470 OHM, J,1/4W	1	
R817	ER0S2CKF1371	M1.37KOHM, F,1/4W	1	
R818	ERDS2TJ220	C 22 OHM, J,1/4W	1	
R819	ERDS1FJ390	C 39 OHM, J,1/2W	1	
R820	ERDS1FJ120	C 12 OHM, J,1/2W	1	
R821,22	ERX12SJ1R8	M 1.8 OHM, J,1/2W	2	
R823	ERDS2TJ102	C 1KOHM, J,1/4W	1	
R824	ERDS2TJ153	C 15KOHM, J,1/4W	1	
R825	ERDS2TJ104	C 100KOHM, J,1/4W	1	
R826	ERDS2TJ103	C 10KOHM, J,1/4W	1	
R828	ERDS2TJ103	C 10KOHM, J,1/4W	1	
R829	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R830	ERJ6GEYJ272	M 2.7KOHM,J,1/10W	1	
R831	ERDS2TJ332	C 3.3KOHM, J,1/4W	1	
R832	ERD75TAJ825	C 8.2MOHM, J,3/4W	1	⚠
R833,34	ERDS2TJ104	C 100KOHM, J,1/4W	2	
R835	ERDS2TJ101	C 100 OHM, J,1/4W	1	
R836	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R837	ERDS2TJ222	C 2.2KOHM, J,1/4W	1	
R838	ERDS1FJ330	C 33 OHM, J,1/2W	1	
R839	ERDS2TJ222	C 2.2KOHM, J,1/4W	1	
R840	ERDS2TJ470	C 47 OHM, J,1/4W	1	
R841	ERDS2TJ104	C 100KOHM, J,1/4W	1	
R842	ERDS2TJ223	C 22KOHM, J,1/4W	1	
R843	ERDS2TJ681	C 680 OHM, J,1/4W	1	
R844	ERDS2TJ104	C 100KOHM, J,1/4W	1	
R845	ERDS2TJ332	C 3.3KOHM, J,1/4W	1	
R846	ERJ6GEYJ182	M 1.8KOHM,J,1/10W	1	
R847	ERDS1FJ473	C 47KOHM, J,1/2W	1	
R848	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
R852	ERDS1FJ562	C 5.6KOHM, J,1/2W	1	ERDS1FJ562T

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R854	ERDS2TJ102	C 1KOHM, J,1/4W	1	
R855	ERDS2TJ913	C 91KOHM, J,1/4W	1	ERDS2TJ913T
R856	ERDS2TJ123	C 12KOHM, J,1/4W	1	
R857,58	ERX1SJ1R0P	M 1 OHM, J, 1W	2	
R859	ERDS2TJ272	C 2.7KOHM, J,1/4W	1	
R860	ERDS1FJ102	C 1KOHM, J,1/2W	1	
R861-63	ERX12SJR22P	M0.22 OHM, J,1/2W	3	
R865	ERDS2TJ102	C 1KOHM, J,1/4W	1	
R867	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R868	ERJ6GEYJ223	M 22KOHM,J,1/10W	1	
R869	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R870	ERJ6GEYJ223	M 22KOHM,J,1/10W	1	
R875	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R876	ERJ6GEYJ393	M 39KOHM,J,1/10W	1	
R877	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R879	ERJ6GEYJ393	M 39KOHM,J,1/10W	1	
R888	ERJ6ENF1501	M 1.5KOHM, 1/10W	1	
R889	ERJ6ENF1581	M1.58KOHM, 1/10W	1	
R890	ERJ6ENF30R0	M 30 OHM, 1/10W	1	
R891	ERJ6ENF5600	M 560 OHM, 1/10W	1	
R894	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R895	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R896	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R899	ERG1SJ273P	M 27KOHM, J, 1W	1	
R902	ERDS2TJ223	C 22KOHM, J,1/4W	1	
R904	ERDS2TJ101	C 100 OHM, J,1/4W	1	
R905	ERDS2TJ223	C 22KOHM, J,1/4W	1	
R906	ERDS2TJ472	C 4.7KOHM, J,1/4W	1	
R908	ERDS2TJ471	C 470 OHM, J,1/4W	1	
R953	ERQ14AJ101P	F 100 OHM, J,1/4W	1	
R954	ERDS2TJ472	C 4.7KOHM, J,1/4W	1	
R961	ERQ1CJP331S	F 330 OHM, J, 1W	1	
R962	ERDS2TJ822	C 8.2KOHM, J,1/4W	1	
R964	ERDS2FJ561	C 560 OHM, J,1/4W	1	
R965	ERDS2TJ683	C 68KOHM, J,1/4W	1	
R966	ERG3FJ561H	M 560 OHM, J, 3W	1	
R967	ERDS2TJ822	C 8.2KOHM, J,1/4W	1	
R968	ERDS2FJ561	C 560 OHM, J,1/4W	1	
R969	ERQ14AJ120P	F 12 OHM, J,1/4W	1	
R970,71	ERQ14AJ2R2P	F 2.2 OHM, J,1/4W	2	
R972	ERQ14AJ120P	F 12 OHM, J,1/4W	1	
R975	ERDS2TJ683	C 68KOHM, J,1/4W	1	
R976,77	ERDS2TJ100	C 10 OHM, J,1/4W	2	
R991	ERDS2TJ470	C 47 OHM, J,1/4W	1	
R995	ERDS2TJ150	C 15 OHM, J,1/4W	1	
R1010	ERD25V0R00	C 0 OHM, J,1/4W	1	
R1025,26	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R1051	ER0S2CKF1002	M 10KOHM, F,1/4W	1	
R1052,53	ERDS2TJ222	C 2.2KOHM, J,1/4W	2	
R1054	ERDS2TJ332	C 3.3KOHM, J,1/4W	1	
R1055	ERDS2TJ512	C 5.1KOHM, J,1/4W	1	
R1056	ERDS2TJ912	C 9.1KOHM, J,1/4W	1	
R1057	ERDS2TJ223	C 22KOHM, J,1/4W	1	
R1058	ERDS2TJ103	C 10KOHM, J,1/4W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R1059	ERDS2TJ102	C 1KOHM, J,1/4W	1	
R1060	ERDS2TJ470	C 47 OHM, J,1/4W	1	
R1061	ERDS2TJ101	C 100 OHM, J,1/4W	1	
R1062	ERDS2TJ182	C 1.8KOHM, J,1/4W	1	
R1501	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R1503	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	1	
R1504	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R1505	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R1506,07	ERJ6GEYJ102	M 1KOHM,J,1/10W	2	
R1508	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R1509	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
R1514	ERJ6GEYJ331	M 330 OHM,J,1/10W	1	
R1515,16	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R1521-24	ERDS2TJ104	C 100KOHM, J,1/4W	4	
R1525	ERJ6GEYJ122	M 1.2KOHM,J,1/10W	1	
R1526	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R1527	ERC14GK334	S 330KOHM, K,1/4W	1	
R1528	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R1529	ERG1SJ332P	M 3.3KOHM, J, 1W	1	
R1530	ERG3FJ821H	M 820 OHM, J, 3W	1	
R1531	ERG3FJ102H	M 1KOHM, J, 3W	1	
R1532	ERC12GK104	S 100KOHM, K,1/2W	1	
R1533,34	ERDS2TJ125	C 1.2MOHM, J,1/4W	2	
R1535	ERJ6GEYJ153	M 15KOHM,J,1/10W	1	
R1536	ERG2FJ123H	M 12KOHM, J, 2W	1	
R1537	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R1538,39	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R1540	ERJ6GEYJ560	M 56 OHM,J,1/10W	1	
R2203	ERJ6GEYJ751	M 750 OHM,J,1/10W	1	
R2206,07	ERJ6GEYJ102	M 1KOHM,J,1/10W	2	
R2220	ERJ6GEY0R00	M 0 OHM,J,1/10W	1	
R2221	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R2301	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R2302	ERJ6GEYJ392	M 3.9KOHM,J,1/10W	1	
R2303	ERJ6GEYJ271	M 270 OHM,J,1/10W	1	
R2304	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R2305	ERJ6GEYJ223	M 22KOHM,J,1/10W	1	
R2307	ERJ6GEYJ223	M 22KOHM,J,1/10W	1	
R2308	ERJ6GEYJ183	M 18KOHM,J,1/10W	1	
R2309	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R2313,14	ERJ6GEYJ102	M 1KOHM,J,1/10W	2	
R2315,16	ERJ6GEYJ122	M 1.2KOHM,J,1/10W	2	
R2324,25	ERJ6GEYJ102	M 1KOHM,J,1/10W	2	
R2326	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R2327	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R2328	ERJ6GEYJ183	M 18KOHM,J,1/10W	1	
R2329	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R2330	ERDS2TJ333	C 33KOHM, J,1/4W	1	
R2332	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R2333	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R2334,35	ERJ6ENF1100	M 110 OHM, 1/10W	2	
R2336,37	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R2338	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R2339	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R2341	ERJ6GEYJ223	M 22KOHM,J,1/10W	1	
R2342	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R2345	ERJ6GEYJ183	M 18KOHM,J,1/10W	1	
R2346	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R2348	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R2349	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R2351	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R2352	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R2353	ERJ6ENF4701	M 4.7KOHM, 1/10W	1	
R2354	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R2355	ERJ6GEYJ683	M 68KOHM,J,1/10W	1	
R2356	ERJ6GEYJ223	M 22KOHM,J,1/10W	1	
R2357	ERJ6ENF1303	M 130KOHM, 1/10W	1	
R2358	ERJ6GEYJ223	M 22KOHM,J,1/10W	1	
R2359	ERJ6GEYJ683	M 68KOHM,J,1/10W	1	
R2360	ERJ6ENF4701	M 4.7KOHM, 1/10W	1	
R2361	ERJ6ENF1202	M 12KOHM, 1/10W	1	
R2362	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R2363	ERJ6ENF5232	M52.3KOHM, 1/10W	1	
R2364-66	ERJ6ENF1202	M 12KOHM, 1/10W	3	
R2367	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R2368	ERJ6ENF5232	M52.3KOHM, 1/10W	1	
R2369,70	ERJ6GEYJ102	M 1KOHM,J,1/10W	2	
R2371	ERJ6GEYJ223	M 22KOHM,J,1/10W	1	
R2373	ERJ6GEYJ153	M 15KOHM,J,1/10W	1	
R2385,86	ERDS2TJ102	C 1KOHM, J,1/4W	2	
R2451	ERDS2TJ681	C 680 OHM, J,1/4W	1	
R2452	ERJ6GEYJ681	M 680 OHM,J,1/10W	1	
R2453	ERJ6GEYJ105	M 1MOHM,J,1/10W	1	
R2454	ERJ6ENF6202	M 62KOHM, 1/10W	1	
R2455	ERJ6ENF3902	M 39KOHM, 1/10W	1	
R2456,57	ERJ6GEYJ102	M 1KOHM,J,1/10W	2	
R2458	ERJ6GEYJ105	M 1MOHM,J,1/10W	1	
R2459	ERJ6ENF4701	M 4.7KOHM, 1/10W	1	
R2460,61	ERDS2TJ271	C 270 OHM, J,1/4W	2	
R3041	ERJ6GEYJ471	M 470 OHM,J,1/10W	1	
R3042-44	ERJ6GEYJ681	M 680 OHM,J,1/10W	3	
R3046,47	ERJ6GEYJ333	M 33KOHM,J,1/10W	2	
R3048-50	ERDS2TJ820	C 82 OHM, J,1/4W	3	
R3051	ERJ6GEYJ820	M 82 OHM,J,1/10W	1	
R3052-54	ERJ6ENF75R0	M 75 OHM, 1/10W	3	
R3060-67	ERJ6GEYJ184	M 180KOHM,J,1/10W	8	
R3069,70	ERJ6GEYJ184	M 180KOHM,J,1/10W	2	
R3074	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R3076	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R3081	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R3083	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R3084	ERJ6GEYJ680	M 68 OHM,J,1/10W	1	
R3100	ERJ6GEYJ221	M 220 OHM,J,1/10W	1	
R3101,02	ERDS2TJ221	C 220 OHM, J,1/4W	2	
R3103-10	ERJ6GEYJ221	M 220 OHM,J,1/10W	8	
R3114	ERJ6GEYJ221	M 220 OHM,J,1/10W	1	
R3115	ERDS2TJ221	C 220 OHM, J,1/4W	1	
R3116	ERJ6GEYJ221	M 220 OHM,J,1/10W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3117,18	ERDS2TJ221	C 220 OHM, J,1/4W	2	
R3119-22	ERJ6GEYJ221	M 220 OHM,J,1/10W	4	
R3123-25	ERDS2TJ221	C 220 OHM, J,1/4W	3	
R3126	ERJ6GEYJ221	M 220 OHM,J,1/10W	1	
R3127-30	ERDS2TJ221	C 220 OHM, J,1/4W	4	
R3131,32	ERJ6GEYJ221	M 220 OHM,J,1/10W	2	
R3140,41	ERJ6GEYJ221	M 220 OHM,J,1/10W	2	
R3152	ERDS2TJ224	C 220KOHM, J,1/4W	1	
R3154	ERDS2TJ224	C 220KOHM, J,1/4W	1	
R3157,58	ERDS2TJ102	C 1KOHM, J,1/4W	2	
R3801	ER0S2CKF1000	M 100 OHM, F,1/4W	1	
R3805	ERDS2TJ102	C 1KOHM, J,1/4W	1	
R3808	ERDS2TJ332	C 3.3KOHM, J,1/4W	1	
R3809	ERC12GK821	S 820 OHM, K,1/2W	1	
R3811	ER0S2CKF1000	M 100 OHM, F,1/4W	1	
R3815	ERDS2TJ102	C 1KOHM, J,1/4W	1	
R3818	ERDS2TJ102	C 1KOHM, J,1/4W	1	
R3819	ERC12GK821	S 820 OHM, K,1/2W	1	
R3821	ER0S2CKF1000	M 100 OHM, F,1/4W	1	
R3825	ERDS2TJ102	C 1KOHM, J,1/4W	1	
R3828	ERDS2TJ122	C 1.2KOHM, J,1/4W	1	
R3829	ERC12GK821	S 820 OHM, K,1/2W	1	
R3839-41	ERDS2TJ101	C 100 OHM, J,1/4W	3	
R4001	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R4002	ERJ3GEYJ221	M 220 OHM,J,1/16W	1	
R4003	EXB38V101J	RESISTOR ARRAY	1	
R4004	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R4005	ERJ3GEYJ151	M 150 OHM,J,1/16W	1	
R4006	ERJ3GEYJ332	M 3.3KOHM,J,1/16W	1	
R4007	EXB38V560J	RESISTOR ARRAY	1	
R4008	ERJ6ENF6800	M 680 OHM, 1/10W	1	
R4009	ERJ6ENF5100	M 510 OHM, 1/10W	1	
R4010	ERJ6ENF9100	M 910 OHM, 1/10W	1	
R4011	ERJ3GEYJ682	M 6.8KOHM,J,1/16W	1	
R4012	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R4013	ERJ3GEYJ333	M 33KOHM,J,1/16W	1	
R4014,15	ERJ3GEYJ223	M 22KOHM,J,1/16W	2	
R4016	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R4017	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R4018,19	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R4020,21	ERJ3GEYJ332	M 3.3KOHM,J,1/16W	2	
R4022	ERJ3GEYJ561	M 560 OHM,J,1/16W	1	
R4023,24	ERJ3GEYJ102	M 1KOHM,J,1/16W	2	
R4027,28	ERJ3GEYJ332	M 3.3KOHM,J,1/16W	2	
R4041,42	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R4043	ERJ3GEYJ682	M 6.8KOHM,J,1/16W	1	
R4044	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R4045	ERJ3GEYJ122	M 1.2KOHM,J,1/16W	1	
R4046-48	ERJ3GEYJ272	M 2.7KOHM,J,1/16W	3	
R4051	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	D0GB101JA002
R4053,54	ERJ3GEYJ102	M 1KOHM,J,1/16W	2	
R4056	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	D0GB101JA002
R4059	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	D0GB101JA002
R4062	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R4068-72	ERJ3GEYJ102	M 1KOHM,J,1/16W	5	
R4074,75	ERJ3GEYJ102	M 1KOHM,J,1/16W	2	
R4077	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R4081	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R4083-85	ERJ3GEYJ102	M 1KOHM,J,1/16W	3	
R4087-89	ERJ3GEYJ102	M 1KOHM,J,1/16W	3	
R4092	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R4093	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R4094	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R4095	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R4096	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R4100-07	ERJ3GEYJ103	M 10KOHM,J,1/16W	8	
R4108-11	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	4	
R4112-15	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	4	
R4116,17	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R4118	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R4119	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	1	
R4120	ERJ3GEYJ123	M 12KOHM,J,1/16W	1	
R4121	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R4122	ERJ3GEYJ221	M 220 OHM,J,1/16W	1	
R4123	ERJ3GEYJ241	M 240 OHM,J,1/16W	1	
R4124	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R4125	ERJ3GEYJ123	M 12KOHM,J,1/16W	1	
R4126	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R4127	ERJ3GEYJ221	M 220 OHM,J,1/16W	1	
R4128	ERJ3GEYJ241	M 240 OHM,J,1/16W	1	
R4129	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R4130,31	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R4132,33	ERJ3GEYJ102	M 1KOHM,J,1/16W	2	
R4134,35	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R4136	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R4137	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	1	
R4200	ERJ3EKF2400	M 240 OHM, 1/16W	1	
R4201,02	ERJ3EKF2200	M 220 OHM, 1/16W	2	
R4203-05	ERJ3GEYJ103	M 10KOHM,J,1/16W	3	
R4206	ERJ3GEYJ221	M 220 OHM,J,1/16W	1	
R4207,08	ERJ3EKF3300	M 330 OHM, 1/16W	2	
R4209,10	ERJ3EKF2401	M 2.4KOHM, 1/16W	2	
R4211	ERJ3EKF7500	M 75OHM, 1/16W	1	
R4212-14	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	3	
R4215,16	ERJ3GEYJ471	M 470 OHM,J,1/16W	2	
R4220,21	ERJ6ENF1501	M 1.5KOHM, 1/10W	2	
R4222	ERJ6ENF2200	M 220 OHM, 1/10W	1	
R4223-28	ERJ6ENF10R0	M 10 OHM, 1/10W	6	
R4229-32	ERJ3GEY0R00	M 0 OHM, 1/16W	4	
R4233,34	ERJ3GEYJ220	M 22 OHM,J,1/16W	2	
R4236	ERJ6ENF1401	M 1.4KOHM, 1/10W	1	
R4237	ERJ6ENF1001	M 1KOHM, 1/10W	1	
R4238	ERJ6ENF2701	M 2.7KOHM, 1/10W	1	
R4245	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R4249	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R4252	ERJ3GEYJ221	M 220 OHM,J,1/16W	1	
R4253,54	ERJ3GEY0R00	M 0 OHM, 1/16W	2	
R4255	ERJ3EKF1002	M 10KOHM, 1/16W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R4257	ERJ3EKF1002	M 10KOHM, 1/16W	1	
R4258	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	1	
R4259	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R4261	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	D0GB101JA002
R4263-70	EXB38V820J	RESISTOR ARRAY	8	
R4272-74	ERJ6ENF33R0	M 33 OHM, 1/10W	3	
R4278	ERJ3GEYJ682	M 6.8KOHM,J,1/16W	1	
R4279	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	1	
R4280	ERJ3EKF3301	M 3.3KOHM, 1/16W	1	
R4281	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R4282	ERJ3GEYJ153	M 15KOHM,J,1/16W	1	
R4283	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R4285	ERJ3GEYJ331	M 330 OHM,J,1/16W	1	
R4286	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	1	
R4290-92	ERJ6ENF33R0	M 33 OHM, 1/10W	3	
R4299	ERJ3GEYJ153	M 15KOHM,J,1/16W	1	
R4314,15	ERJ3GEYJ221	M 220 OHM,J,1/16W	2	
R4322,23	ERJ3GEYJ471	M 470 OHM,J,1/16W	2	
R4326,27	ERJ3GEY0R00	M 0 OHM, 1/16W	2	
R4330-36	ERJ3GEY0R00	M 0 OHM, 1/16W	7	
R4340	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R4349	ERJ3GEYJ681	M 680 OHM,J,1/16W	1	
R4352	ERJ3GEYJ681	M 680 OHM,J,1/16W	1	
R4353	ERJ3GEYJ683	M 68KOHM,J,1/16W	1	
R4354	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R4355	ERJ3GEYJ221	M 220 OHM,J,1/16W	1	
R4356	ERJ6ENF1001	M 1KOHM, 1/10W	1	
R4357	ERJ6ENF2700	M 270 OHM, 1/10W	1	
R4358	ERJ6ENF1001	M 1KOHM, 1/10W	1	
R4359	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	D0GB101JA002
R4360	ERJ3GEYJ471	M 470 OHM,J,1/16W	1	
R4361,62	ERJ3GEY0R00	M 0 OHM, 1/16W	2	
R4364	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R4365	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R4366,67	ERJ3GEY0R00	M 0 OHM, 1/16W	2	
R4368	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	D0GB101JA002
R4369	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R4370	ERJ3GEYJ221	M 220 OHM,J,1/16W	1	
R4371	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R4372	ERJ3EKF1000	M 100 OHM, 1/16W	1	
R4373	ERJ3GEYJ683	M 68KOHM,J,1/16W	1	
R4374	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R4375	ERJ3GEYJ221	M 220 OHM,J,1/16W	1	
R4376	ERJ6ENF2000	M 200 OHM, 1/10W	1	
R4377,78	ERJ6ENF1001	M 1KOHM, 1/10W	2	
R4379	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	D0GB101JA002
R4380	ERJ3GEYJ471	M 470 OHM,J,1/16W	1	
R4381	ERJ3GEYJ820	M 82 OHM,J,1/16W	1	
R4502-04	ERJ3GEYJ221	M 220 OHM,J,1/16W	3	
R4505	ERJ6ENF2401	M 2.4KOHM, 1/10W	1	
R4506	ERJ3EKF2200	M 220 OHM, 1/16W	1	
R4507,08	ERJ3GEYJ681	M 680 OHM,J,1/16W	2	
R4509	ERJ3GEYF472	M 4.7KOHM,F,1/16W	1	
R4510	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	

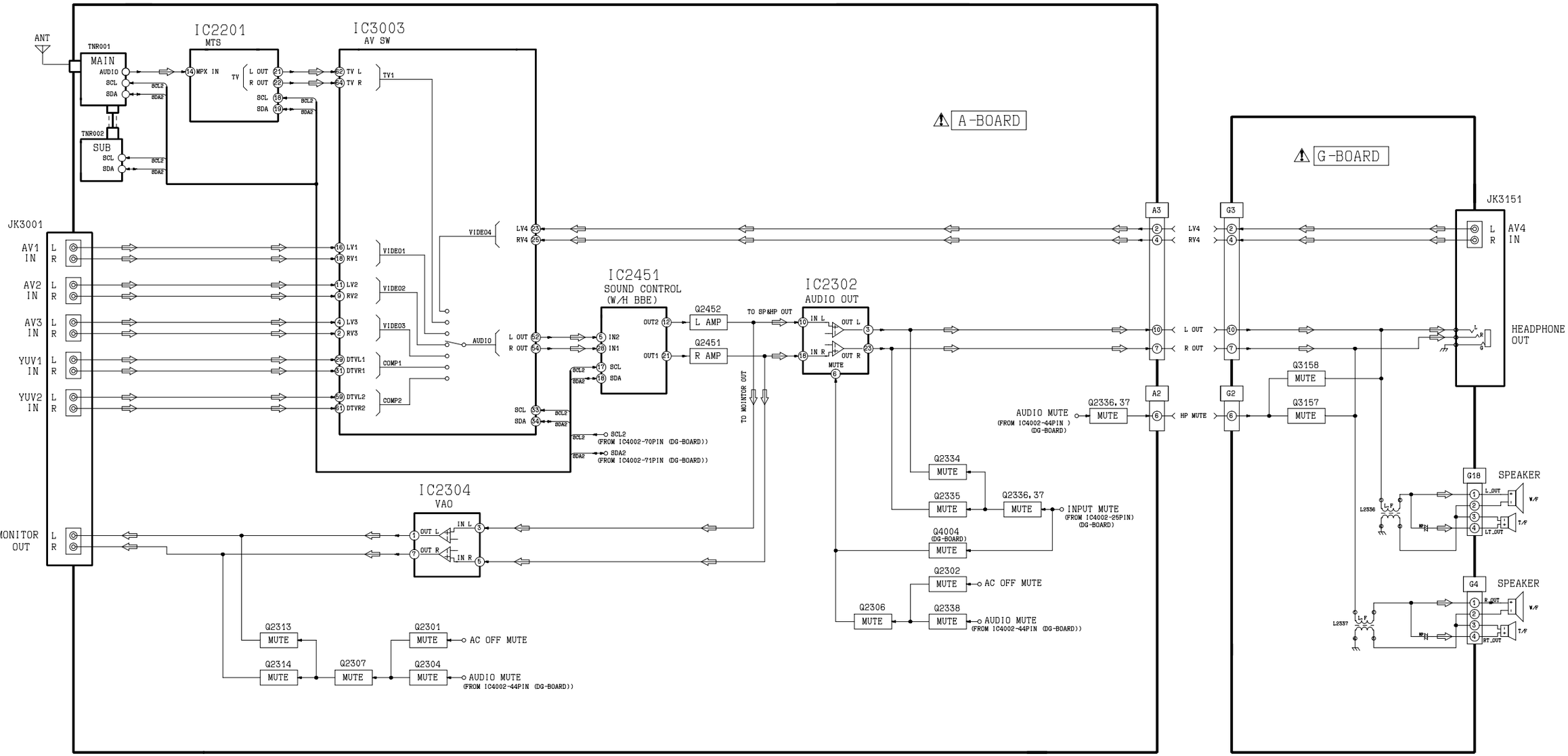
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R4511-13	ERJ3GEY0R00	M 0 OHM, 1/16W	3	
R4514	ERJ3EKF2400	M 240 OHM, 1/16W	1	
R4515,16	ERJ3EKF2200	M 220 OHM, 1/16W	2	
R4517	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R4518,19	ERJ3EKF3300	M 330 OHM, 1/16W	2	
R4520	ERJ3EKF7500	M 75OHM, 1/16W	1	
R4521,22	ERJ3EKF3900	M 390 OHM, 1/16W	2	
R4523	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R4524-26	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	3	
R4527	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R4528	ERJ3GEYJ151	M 150 OHM,J,1/16W	1	
R4529	ERJ3GEYJ331	M 330 OHM,J,1/16W	1	
R4530	ERJ3GEYJ220	M 22 OHM,J,1/16W	1	
R4533	ERJ3GEYJ220	M 22 OHM,J,1/16W	1	
R4536	ERJ3EKF3301	M 3.3KOHM, 1/16W	1	
R4538	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R4540-43	ERJ3GEY0R00	M 0 OHM, 1/16W	4	
R4544-46	EXB38VR000	RESISTOR ARRAY	3	
R4547-49	ERJ3GEY0R00	M 0 OHM, 1/16W	3	
R4550	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	D0GB101JA002
R4552	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R4553	ERJ6ENF1501	M 1.5KOHM, 1/10W	1	
R4554,55	ERJ3GEY0R00	M 0 OHM, 1/16W	2	
R4556	ERJ6ENF1501	M 1.5KOHM, 1/10W	1	
R4557	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	D0GB101JA002
R4558,59	ERJ3GEYJ220	M 22 OHM,J,1/16W	2	
R4560,61	ERJ3GEY0R00	M 0 OHM, 1/16W	2	
R4563-65	ERJ3GEYJ221	M 220 OHM,J,1/16W	3	
R4567	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R4568-73	ERJ3EKF10R0	M 10 OHM, 1/16W	6	
R4592-94	ERJ3GEY0R00	M 0 OHM, 1/16W	3	
R4600,01	ERJ3GEY0R00	M 0 OHM, 1/16W	2	
R4602	ERJ3GEYJ471	M 470 OHM,J,1/16W	1	
R4604	ERJ3GEYJ471	M 470 OHM,J,1/16W	1	
R4605	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R4606	ERJ3GEYJ471	M 470 OHM,J,1/16W	1	
R4607	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R4608	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	1	
R4609	ERJ3GEYJ220	M 22 OHM,J,1/16W	1	
R4610,11	ERJ3GEY0R00	M 0 OHM, 1/16W	2	
R4612	ERJ3GEYJ471	M 470 OHM,J,1/16W	1	
R4616-18	ERJ6ENF75R0	M 75 OHM, 1/10W	3	
R4619	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R4620	ERJ3EKF1500	M 150 OHM, 1/16W	1	
R4621,22	ERJ6ENF2701	M 2.7KOHM, 1/10W	2	
R4623	ERJ6ENF2200	M 220 OHM, 1/10W	1	
R4624	ERJ6ENF2701	M 2.7KOHM, 1/10W	1	
R4625	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R4627	ERJ6ENF2200	M 220 OHM, 1/10W	1	
R4628	ERJ6ENF2701	M 2.7KOHM, 1/10W	1	
R4629,30	ERJ3GEY0R00	M 0 OHM, 1/16W	2	
R4631	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R4633	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	1	
R4634	ERJ3EKF1401	M 1.4KOHM, 1/16W	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R4635,36	ERJ6ENF1001	M 1KOHM, 1/10W	2	
R4637,38	ERJ6ENF1401	M 1.4KOHM, 1/10W	2	
R4639	ERJ6ENF1001	M 1KOHM, 1/10W	1	
R4640	ERJ6ENF1401	M 1.4KOHM, 1/10W	1	
R4641	ERJ6ENF1001	M 1KOHM, 1/10W	1	
R4642	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R4643-45	ERJ3GEYJ100	M 10 OHM,J,1/16W	3	
R4647	ERJ3GEYJ151	M 150 OHM,J,1/16W	1	
R4648	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R4650	ERJ3GEYJ332	M 3.3KOHM,J,1/16W	1	
R4653	ERJ3GEYJ151	M 150 OHM,J,1/16W	1	
R4654	ERJ3GEYJ681	M 680 OHM,J,1/16W	1	
R4655-57	ERJ3GEYJ103	M 10KOHM,J,1/16W	3	
R4658	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	D0GB101JA002
R4660	ERJ3GEYJ333	M 33KOHM,J,1/16W	1	
R4662	ERJ3GEYJ333	M 33KOHM,J,1/16W	1	
R4665	ERJ3GEYJ333	M 33KOHM,J,1/16W	1	
R4666	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	D0GB101JA002
R4668	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	D0GB101JA002
R4670	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R4671	ERJ3GEYJ123	M 12KOHM,J,1/16W	1	
R4672	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	D0GB101JA002
R4674	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R4677	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R4678	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R4682	ERJ3GEYJ470	M 47 OHM,J,1/16W	1	
R4685	ERJ3GEYJ471	M 470 OHM,J,1/16W	1	
R4686	ERJ3GEYJ330	M 33 OHM,J,1/16W	1	
R4687-90	ERJ3GEYJ221	M 220 OHM,J,1/16W	4	
R4691	ERJ3GEYJ330	M 33 OHM,J,1/16W	1	
R4692	ERJ3GEYJ681	M 680 OHM,J,1/16W	1	
R4693	ERJ3EKF3900	M 390 OHM, 1/16W	1	
R4694	ERJ3GEYJ681	M 680 OHM,J,1/16W	1	
R4695	ERJ3GEYJ221	M 220 OHM,J,1/16W	1	
R4696	ERJ3GEYJ330	M 33 OHM,J,1/16W	1	
R4697-99	ERJ3GEY0R00	M 0 OHM, 1/16W	3	
R4828	ERJ6GEYJ562	M 5.6KOHM,J,1/10W	1	
R4829-32	ERJ3GEYJ331	M 330 OHM,J,1/16W	4	
R4833-36	ERJ3GEYJ152	M 1.5KOHM,J,1/16W	4	
R4839-44	ERJ3GEYJ221	M 220 OHM,J,1/16W	6	
R4845	ERJ3GEYJ182	M 1.8KOHM,J,1/16W	1	
R4846	ERJ3GEYJ105	M 1MOHM,J,1/16W	1	
R4847,48	ERJ3GEYJ152	M 1.5KOHM,J,1/16W	2	
R4849	ERJ3GEYJ151	M 150 OHM,J,1/16W	1	
R4850,51	ERJ3GEYJ152	M 1.5KOHM,J,1/16W	2	
R4852-55	ERJ3GEYJ220	M 22 OHM,J,1/16W	4	
R4856	ERJ3GEYJ471	M 470 OHM,J,1/16W	1	
R4857	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R4858	ERJ3GEYJ471	M 470 OHM,J,1/16W	1	
R4859	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R4860	ERJ3GEYJ823	M 82KOHM,J,1/16W	1	
R4861	ERJ3GEYJ133	M 13KOHM,J,1/16W	1	ERJ3GEYJ133V
R4862	ERJ3GEYJ823	M 82KOHM,J,1/16W	1	
R4863	ERJ3GEYJ133	M 13KOHM,J,1/16W	1	ERJ3GEYJ133V

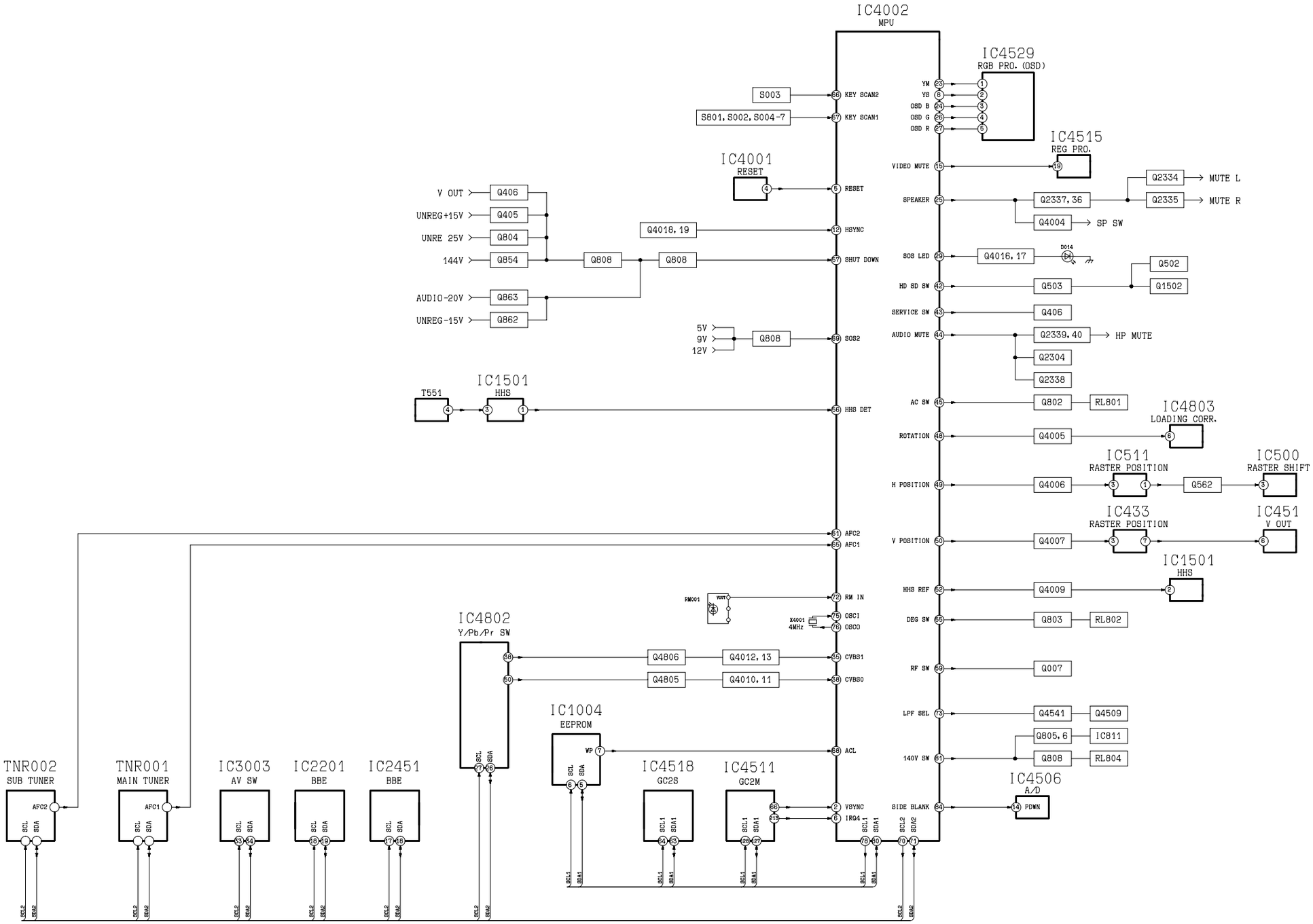
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R4864	ERJ3GEYJ151	M 150 OHM,J,1/16W	1	
R4865	ER0S2CKF1502	M 15KOHM, F,1/4W	1	EROS2CKF1502
R4866	ERJ6ENF6801	M 6.8KOHM, 1/10W	1	
R4868	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R4869	ERJ6GEYJ333	M 33KOHM,J,1/10W	1	
R4870	ERJ6GEYJ683	M 68KOHM,J,1/10W	1	
R4871	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R4874	ERDS2TJ102	C 1KOHM, J,1/4W	1	
R4875	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R4876	ERDS1FJ470	C 47 OHM, J,1/2W	1	
R4877	ERJ3GEYJ241	M 240 OHM,J,1/16W	1	
R4878,79	ERJ3GEYJ151	M 150 OHM,J,1/16W	2	
R4881-87	ERJ3GEYJ151	M 150 OHM,J,1/16W	7	
R4888,89	ERJ3GEYJ750	M 75 OHM,J,1/16W	2	
R4890	ERJ3GEYJ241	M 240 OHM,J,1/16W	1	
R4892	ERJ3GEYJ151	M 150 OHM,J,1/16W	1	
R4893,94	ERJ3GEYJ241	M 240 OHM,J,1/16W	2	
R4895,96	ERJ3GEYJ750	M 75 OHM,J,1/16W	2	
R4898	ERJ3GEYJ151	M 150 OHM,J,1/16W	1	
R4899,00	ERJ3GEYJ241	M 240 OHM,J,1/16W	2	
R4901,02	ERJ3GEYJ750	M 75 OHM,J,1/16W	2	
R4904	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R4905,06	ERJ3GEYJ101	M 100 OHM,J,1/16W	2	D0GB101JA002
R4907-09	ERJ3GEYJ151	M 150 OHM,J,1/16W	3	
R4911,12	ERJ3GEYJ151	M 150 OHM,J,1/16W	2	
R4913	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R4914	ERJ3GEYJ753	M 75KOHM,J,1/16W	1	
R4915	ERJ3GEYJ223	M 22KOHM,J,1/16W	1	
R4916,17	ERJ3GEY0R00	M 0 OHM, 1/16W	2	
R4922	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R4923	ERJ3EKF3301	M 3.3KOHM, 1/16W	1	
R4924	ERJ3EKF1501	M 1.5KOHM, 1/16W	1	
R4925	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R4926-28	ERJ3GEY0R00	M 0 OHM, 1/16W	3	
RL451	TSE10814	SWITCH	1	
RL801	TSEH8011	RELAY	1	K6B1AGA00043 ⚠
RL802	TSE10814	SWITCH	1	⚠
RL803	TSEH0005	RELAY	1	K6B1AGA00042 ⚠
RL804	K6B1CGA00075	RELAY	1	⚠
RM001	PNA4701M04TV	REMOTE CONTROL RECEIVER	1	
RT2	TJS3A9650	4P CONNECTOR	1	K1KA04A00194
RTL	TNPA2410	CIRCUIT BOARD G	1	CT-34WX52 ⚠
RTL	TNPA2411	CIRCUIT BOARD K	1	CT-34WX52 ⚠
RTL	TNPA2412	CIRCUIT BOARD G	1	CT-30WX52 ⚠
RTL	TNPA2413	CIRCUIT BOARD K	1	CT-30WX52 ⚠
RTL	TNPH0465AC	CIRCUIT BOARD A	1	⚠
RTL	TXN/D10GCR	CIRCUIT BOARD D	1	CT-34WX52 ⚠

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
RTL	TXN/D10GDR	CIRCUIT BOARD D	1	CT-30WX52 ⚠
RTL	TXN/L10GCR	CIRCUIT BOARD L	1	⚠
RTL	TXN/P10GCR	CIRCUIT BOARD P	1	⚠
RTL	TXNDG10GCR	CIRCUIT BOARD DG	1	⚠
S002-07	EVQPBD05R	SWITCH	6	
S801	K0F122A00172	SWITCH	1	
T501	ETH19K186AM	REMOCON TRANS	1	
T551	KFT5AV419F1	FLYBACK TRANS	1	CT-30WX52 ⚠
T551	KFT5AV419F2	FLYBACK TRANS	1	CT-34WX52 ⚠
T801	ETS49KL145AG	SWITCHING TRANS	1	⚠
T802	ETP30KB921GG	TRANS	1	⚠
T1501	ETF18L107A	TRANS	1	⚠
T3001,02	G0B250D00001	CHOKE COIL	2	
T3020,21	TSKX026	CHOKE COIL	2	G0BYYYY00016
T3022	G0B600G00001	CHOKE COIL	1	
T3023	TSKX026	CHOKE COIL	1	G0BYYYY00016
T3024-26	G0B600G00001	CHOKE COIL	3	
T4801	G0B600G00001	CHOKE COIL	1	
TNR001	ENG36602GS	TUNER	1	⚠
TNR002	ENG36603GR	TUNER	1	⚠
X4001	H0J400400019	CRYSTAL	1	
X4501	H0J202500002	CRYSTAL	1	

15. SCHEMATIC DIAGRAM FOR PRINTING WITH A4 SIZE

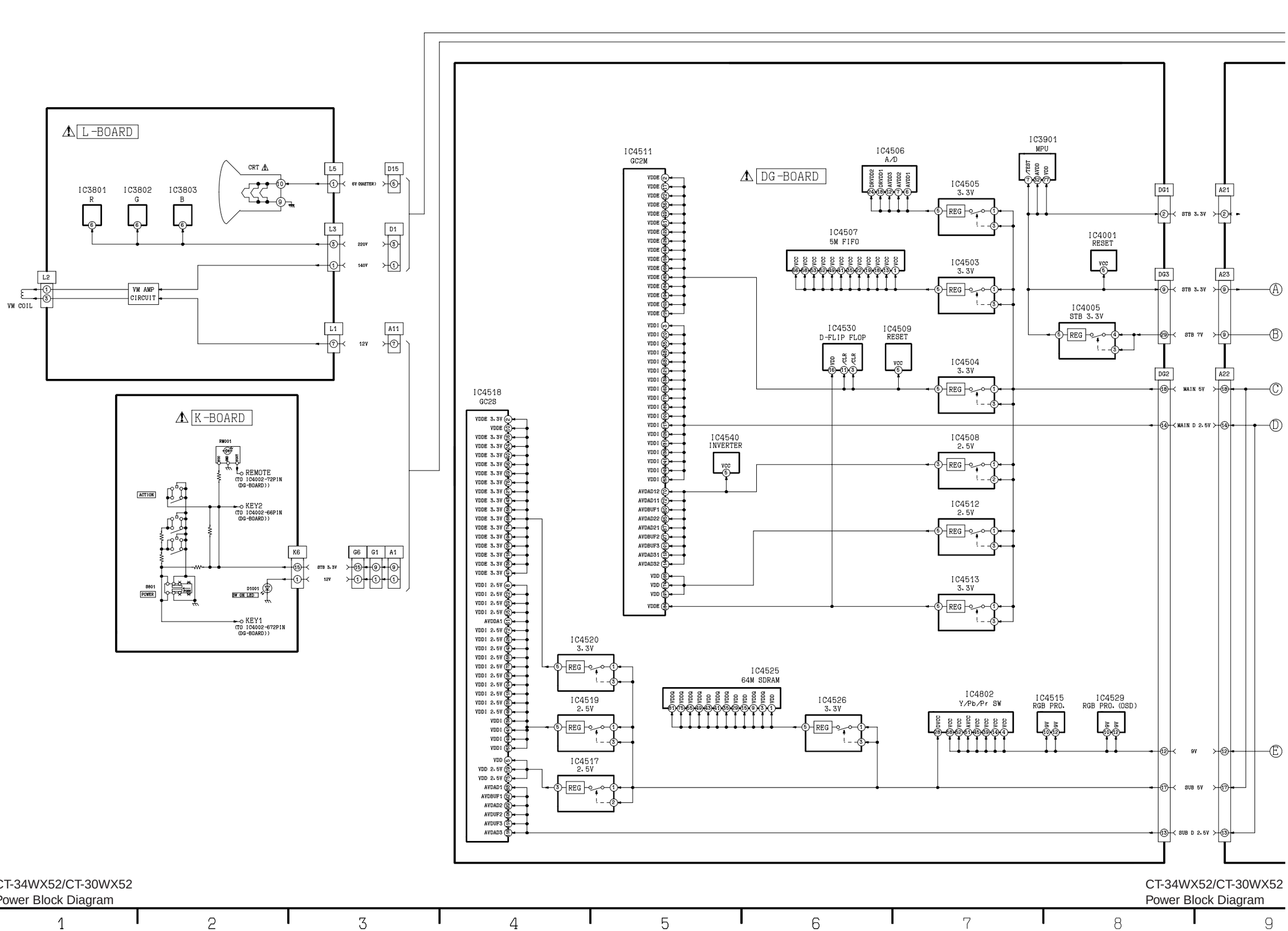


CT-34WX52/CT-30WX52
Audio Block Diagram

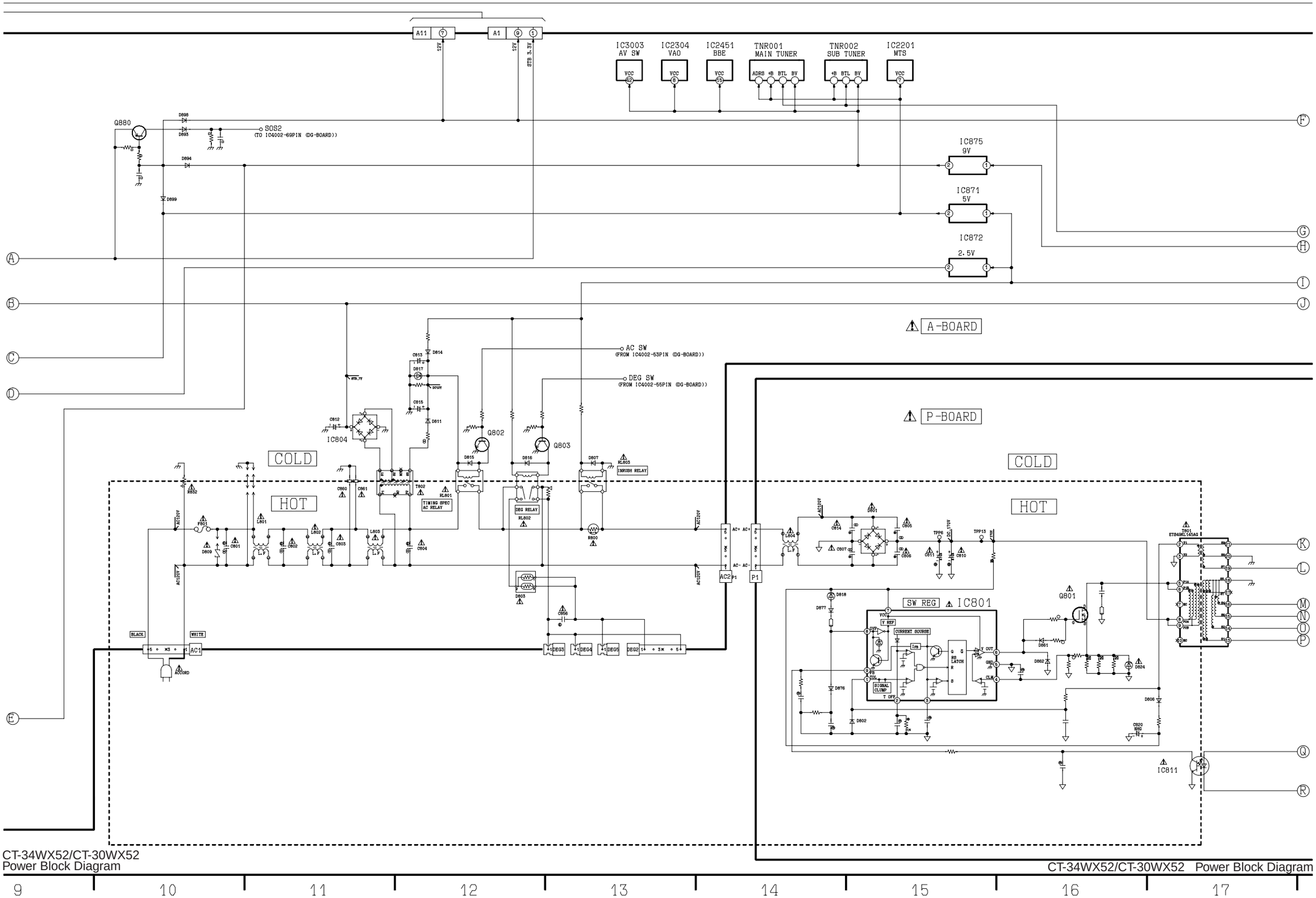


CT-34WX52/CT-30WX52
Control Block Diagram

CT-34WX52/CT-30WX52
Control Block Diagram

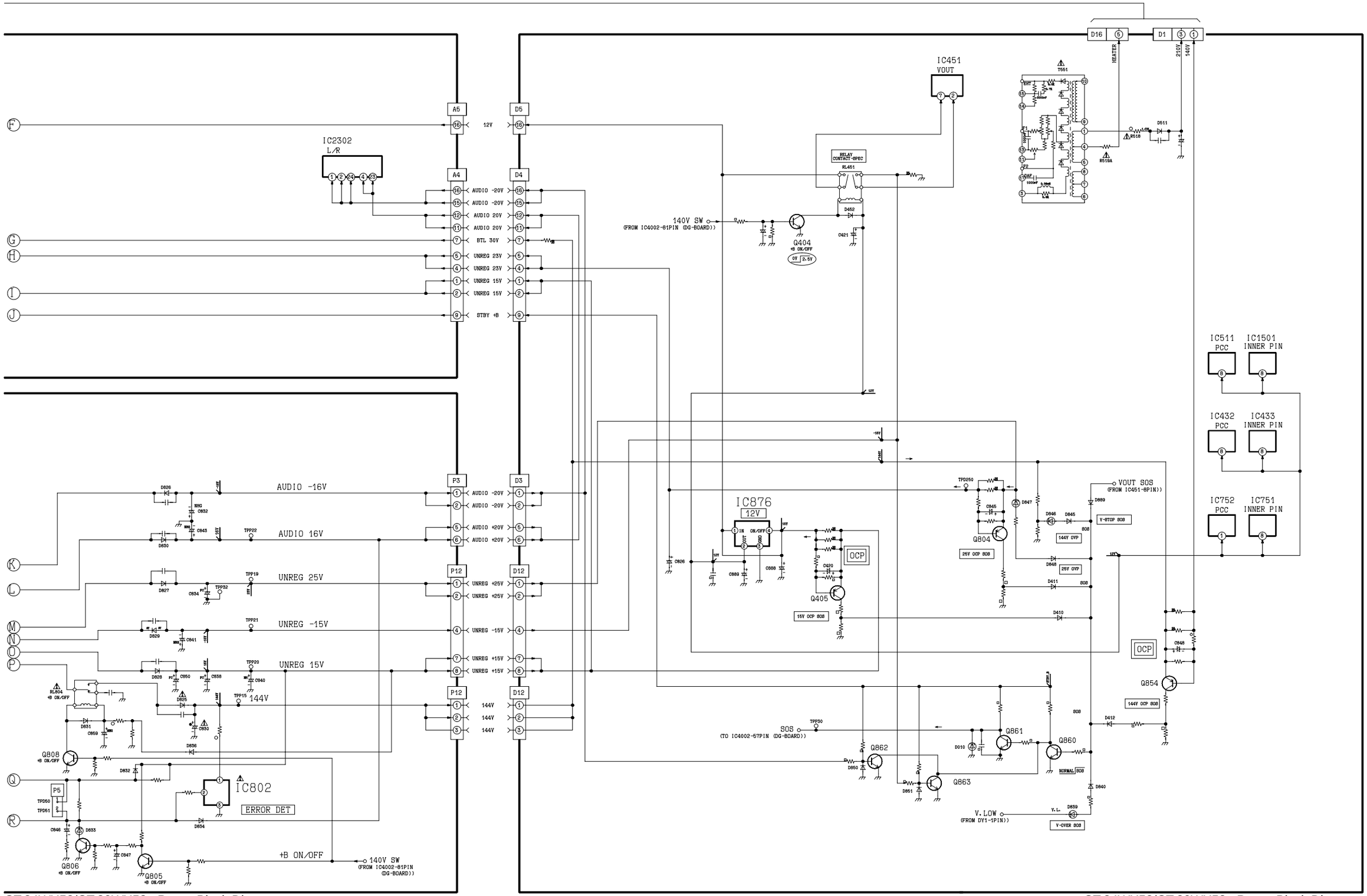


CT-34WX52/CT-30WX52
Power Block Diagram



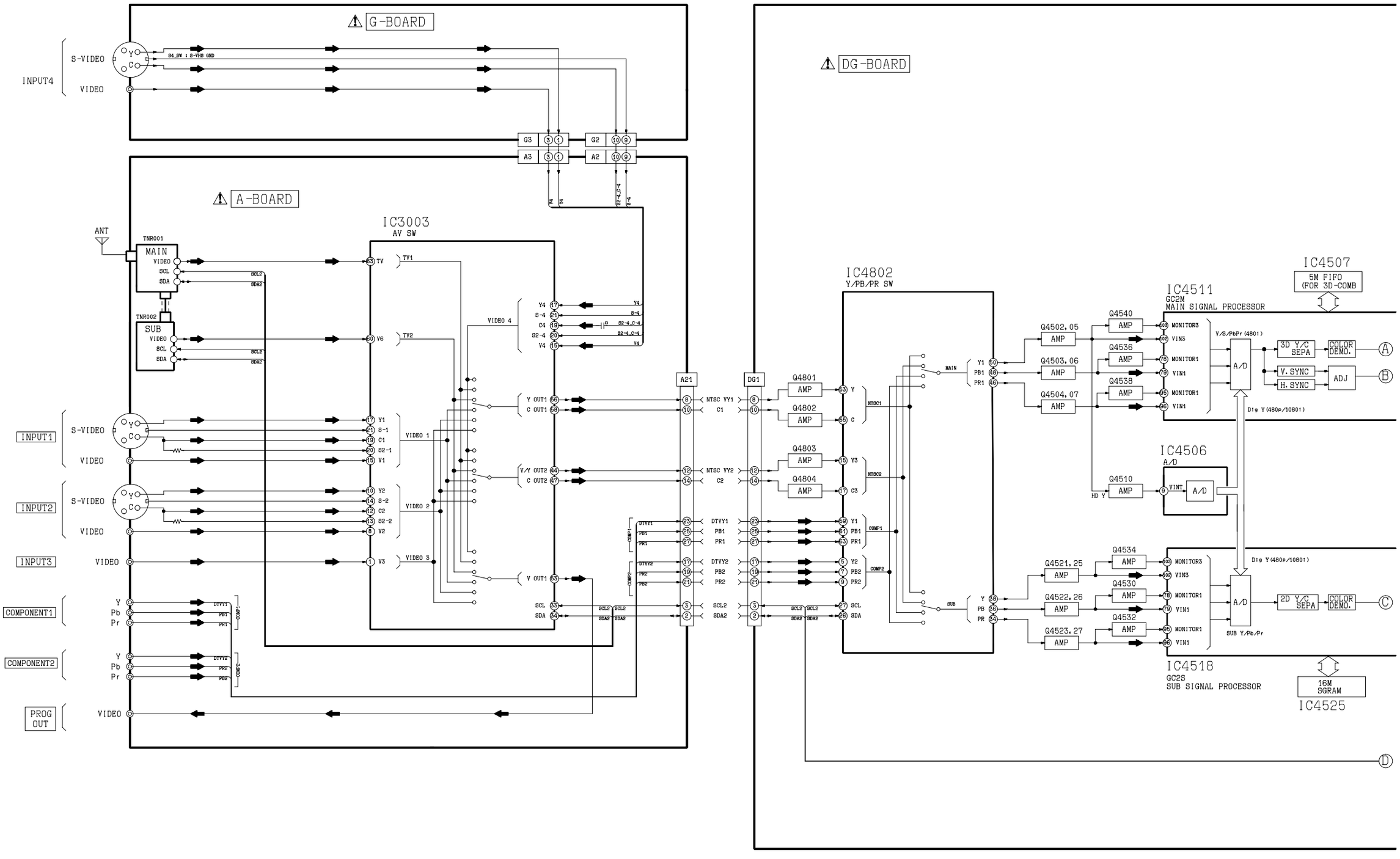
CT-34WX52/CT-30WX52
Power Block Diagram

CT-34WX52/CT-30WX52 Power Block Diagram



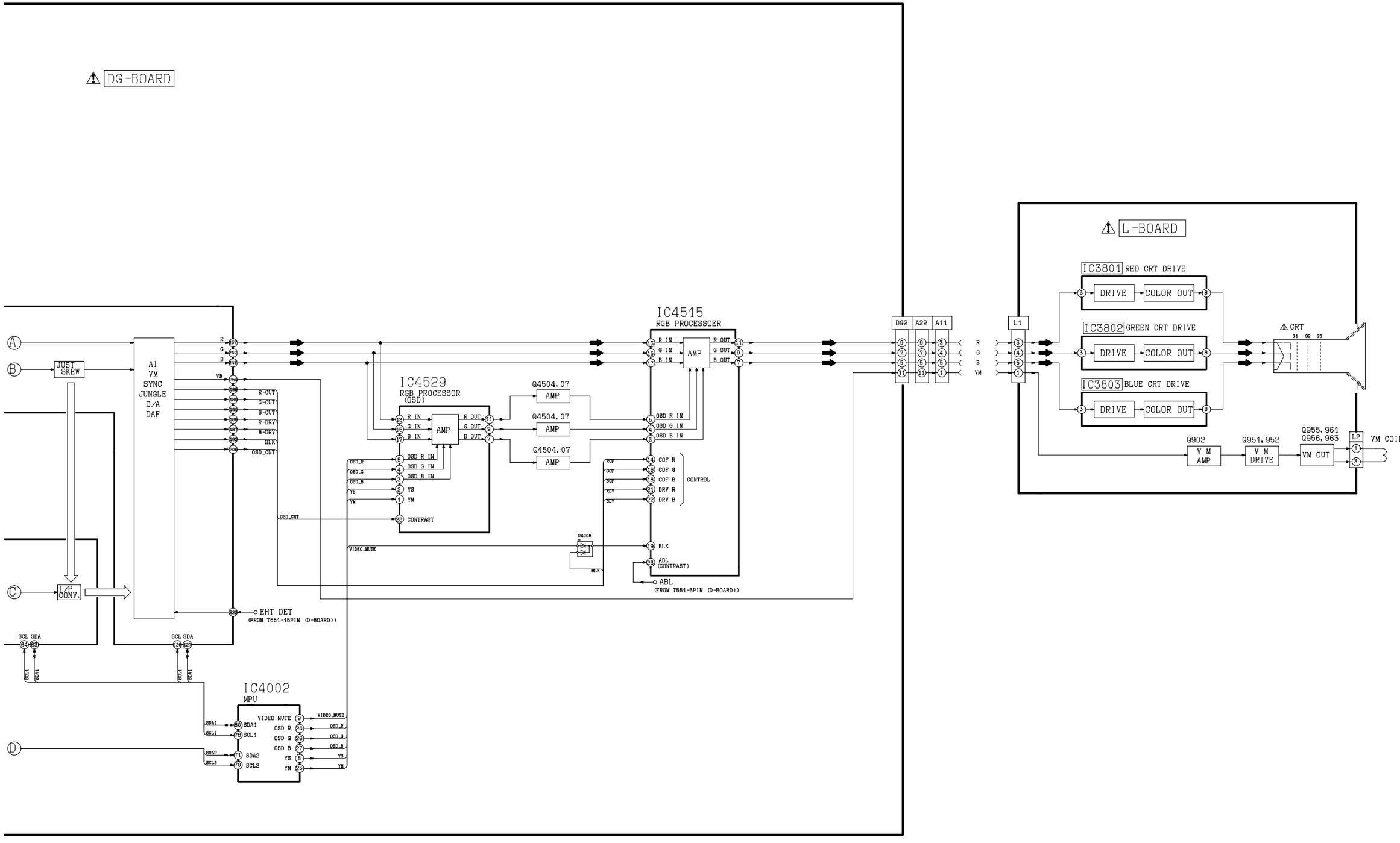
CT-34WX52/CT-30WX52 Power Block Diagram

CT-34WX52/CT-30WX52 Power Block Diagram



CT-34WX52/CT-30WX52
Video Block Diagram

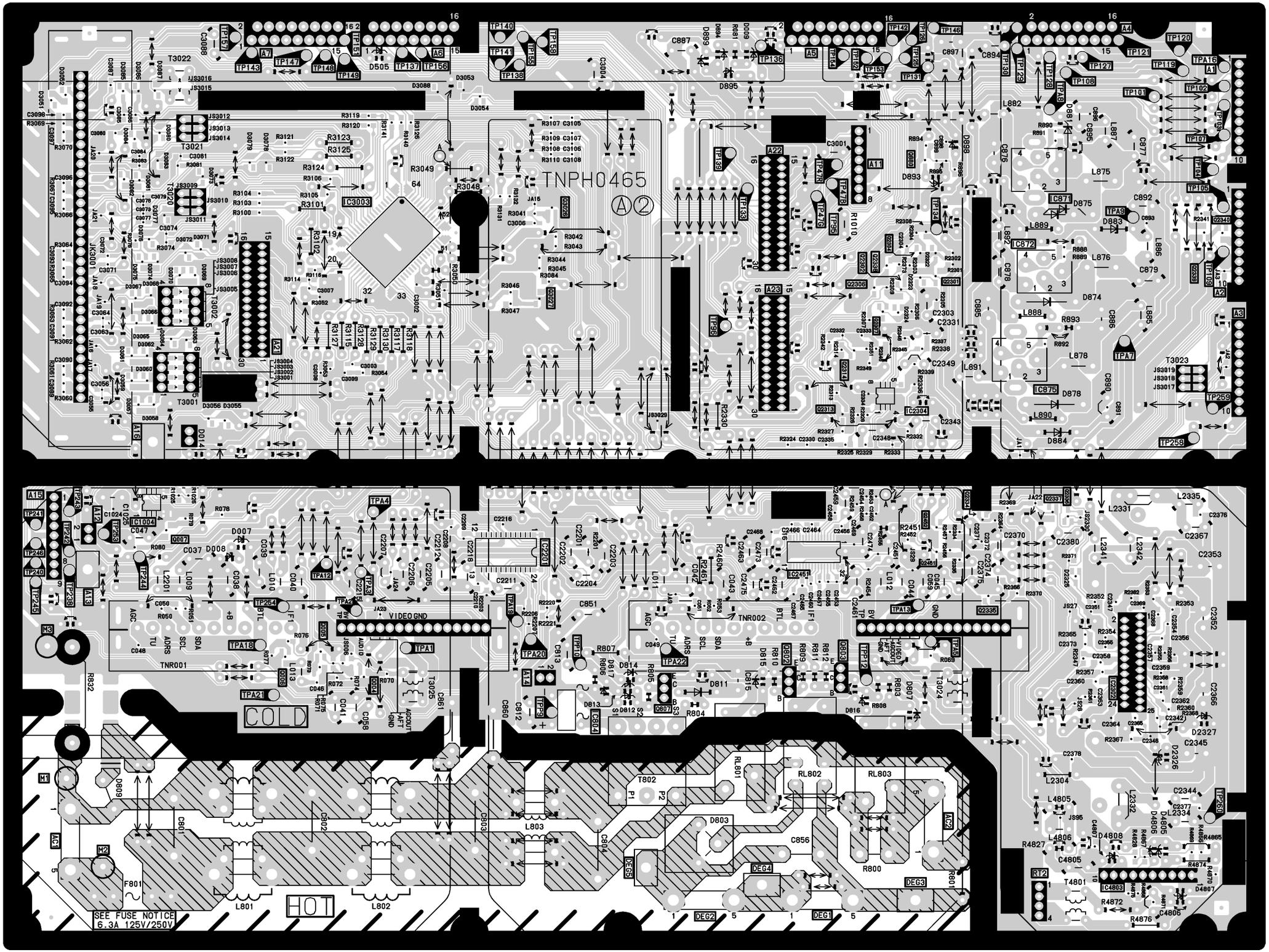
CT-34WX52/CT-30WX52
Video Block Diagram

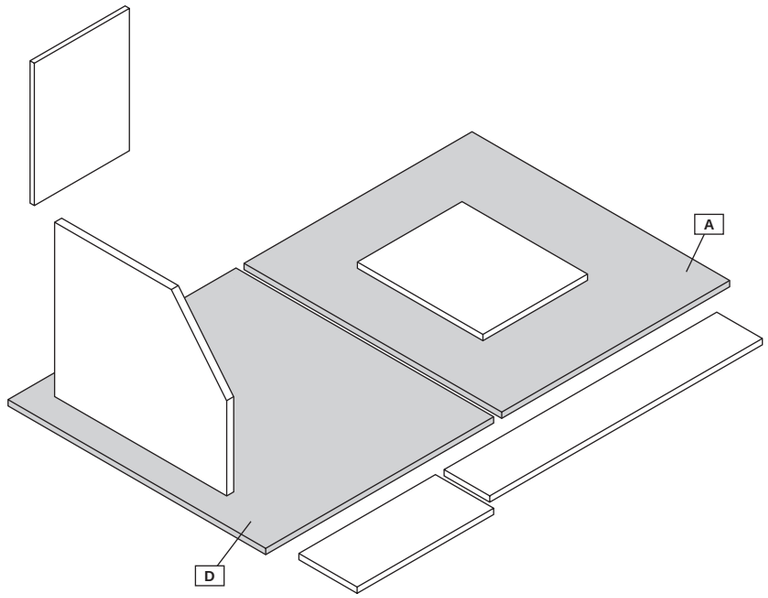


CT-34WX52/CT-30WX52
Video Block Diagram

CT-34WX52/CT-30WX52
Video Block Diagram

A-BOARD (TNPH0465AC)





Parts Location

A-BOARD

IC	
IC804	D-2
IC871	G-5
IC872	G-5
IC875	G-4
IC1004	A-3
IC2201	D-3
IC2302	G-2
IC2304	F-4
IC2451	E-3
IC3003	C-5
IC4803	G-1

TRANSISTOR	
Q004	C-2
Q005	C-2
Q006	B-2
Q007	B-3
Q802	E-2
Q803	F-2
Q807	D-2
Q880	F-5
Q2301	F-4
Q2302	F-5
Q2304	F-5
Q2306	F-4
Q2307	F-4
Q2313	E-4
Q2314	F-4
Q2334	F-3
Q2335	F-3
Q2336	G-3
Q2337	G-3
Q2338	F-5
Q2339	H-5
Q2340	H-5
Q2451	F-3
Q2452	F-3
Q3026	D-5
Q3027	D-4

TP	
TP47B	F-5
TP47G	E-5
TP47R	E-5
TP95	F-5
TP96	E-4
TP101	G-6
TP102	H-6
TP103	H-5
TP104	H-5
TP105	H-5
TP107	H-5
TP108	G-6
TP109	H-5
TP119	G-6
TP120	H-6
TP121	G-6
TP125	F-6
TP126	F-6
TP127	G-6
TP128	G-6
TP129	G-6
TP130	G-6
TP131	F-6
TP133	E-5
TP134	F-5
TP136	E-6
TP137	C-6
TP138	D-6
TP139	E-5
TP140	D-6
TP141	D-6
TP142	F-6
TP143	B-6
TP146	F-6
TP147	B-6
TP148	B-6
TP149	C-6
TP151	C-6
TP152	F-6
TP153	F-6
TP154	F-6
TP155	D-6
TP156	C-6
TP157	B-6
TP158	D-6
TP238	A-3
TP240	A-3
TP241	A-3
TP242	A-3
TP243	A-3
TP244	A-3
TP245	A-3
TP246	A-3
TP253	A-3
TP254	B-3
TP258	G-4
TP258	H-4
TP259	H-4
TP260	H-2
TPA1	C-2
TPA2	C-3
TPA3	C-3
TPA4	C-4
TPA5	F-2
TPA7	G-4
TPA8	G-5
TPA9	G-5
TPA12	B-3
TPA13	F-3
TPA16	H-6
TPA18	B-2
TPA19	D-3
TPA20	D-2
TPA21	B-2
TPA21	C-3
TPA22	D-2
TPP9	D-2
TPP10	D-2
TPP12	F-2

Parts Location

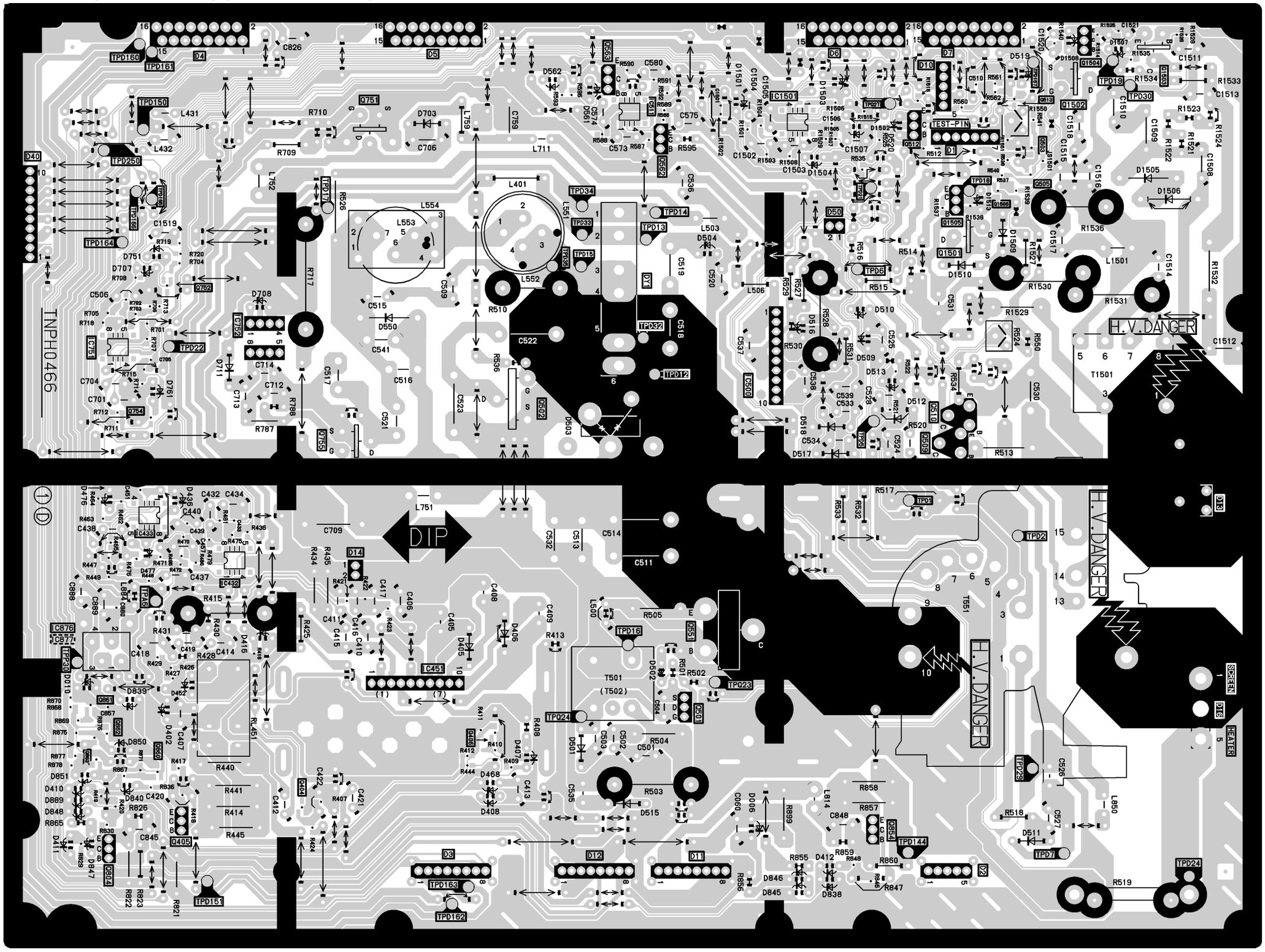
D-BOARD

IC	
IC432	B-3
IC433	A-3
IC451	C-2
IC500	E-4
IC511	E-6
IC751	A-4
IC752	B-4
IC876	A-2
IC877	A-2
IC1501	E-6

TRANSISTOR	
Q404	B-1
Q405	B-1
Q406	C-2
Q501	E-2
Q502	D-4
Q503	G-5
Q505	G-5
Q509	F-4
Q510	F-4
Q512	F-5
Q513	G-6
Q551	E-3
Q562	E-5
Q563	D-6
Q751	C-6
Q752	B-4
Q754	A-4
Q755	C-4
Q804	A-1
Q854	F-1
Q860	B-2
Q861	A-2
Q862	A-2
Q863	A-2
Q1501	F-5
Q1502	G-6
Q1503	G-6
Q1504	G-6
Q1505	F-5
Q1506	F-5

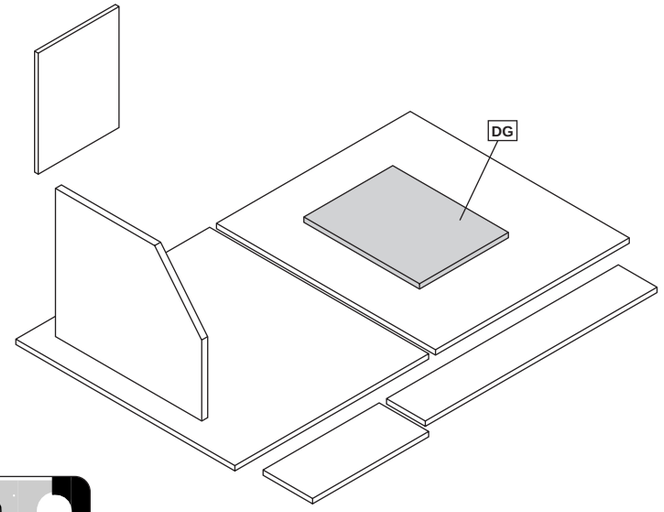
TP	
TPA6	A-3
TPD1	F-3
TPD2	G-3
TPD5	F-4
TPD6	F-5
TPD7	G-1
TPD12	E-4
TPD13	D-5
TPD14	E-5
TPD15	D-5
TPD16	D-2
TPD17	C-5
TPD18	F-5
TPD19	G-6
TPD21	F-5
TPD22	B-4
TPD24	D-2
TPD27	F-6
TPD29	G-2
TPD30	G-6
TPD32	D-4
TPD33	D-5
TPD34	D-5
TPD35	D-5
TPD144	F-1
TPD150	A-5
TPD151	B-1
TPD160	A-6
TPD161	B-6
TPD162	C-1
TPD163	C-1
TPD164	A-5
TPD165	B-5
TPD166	A-5
TPD167	G-6
TPD250	A-5

D-BOARD (TXN/D10GCR) (FOR CT-34WX52)
D-BOARD (TXN/D10GDR) (FOR CT-30WX52)

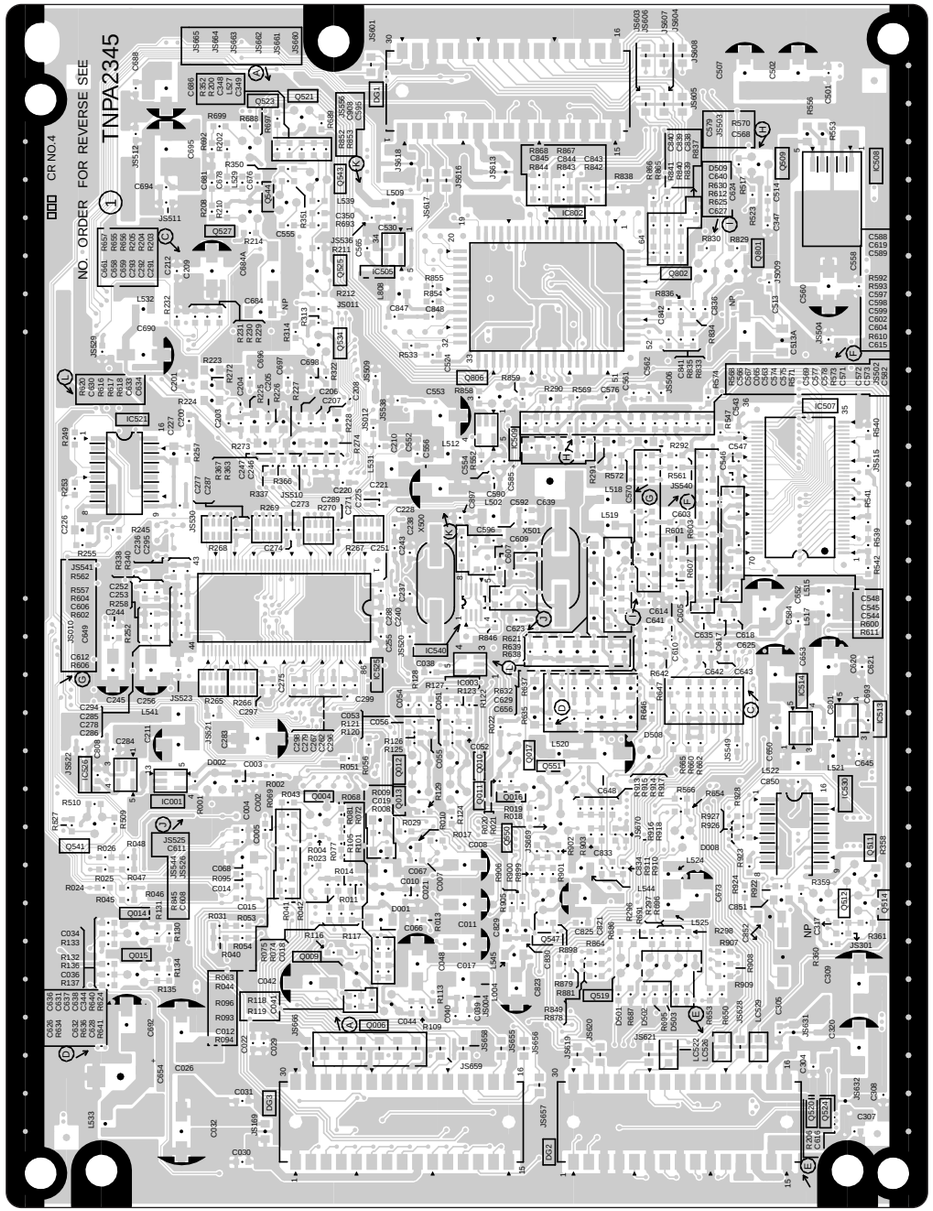


CT-34WX52 D-BOARD TXN/D10GCR, CT-30WX52 D-BOARD TXN/D10GDR

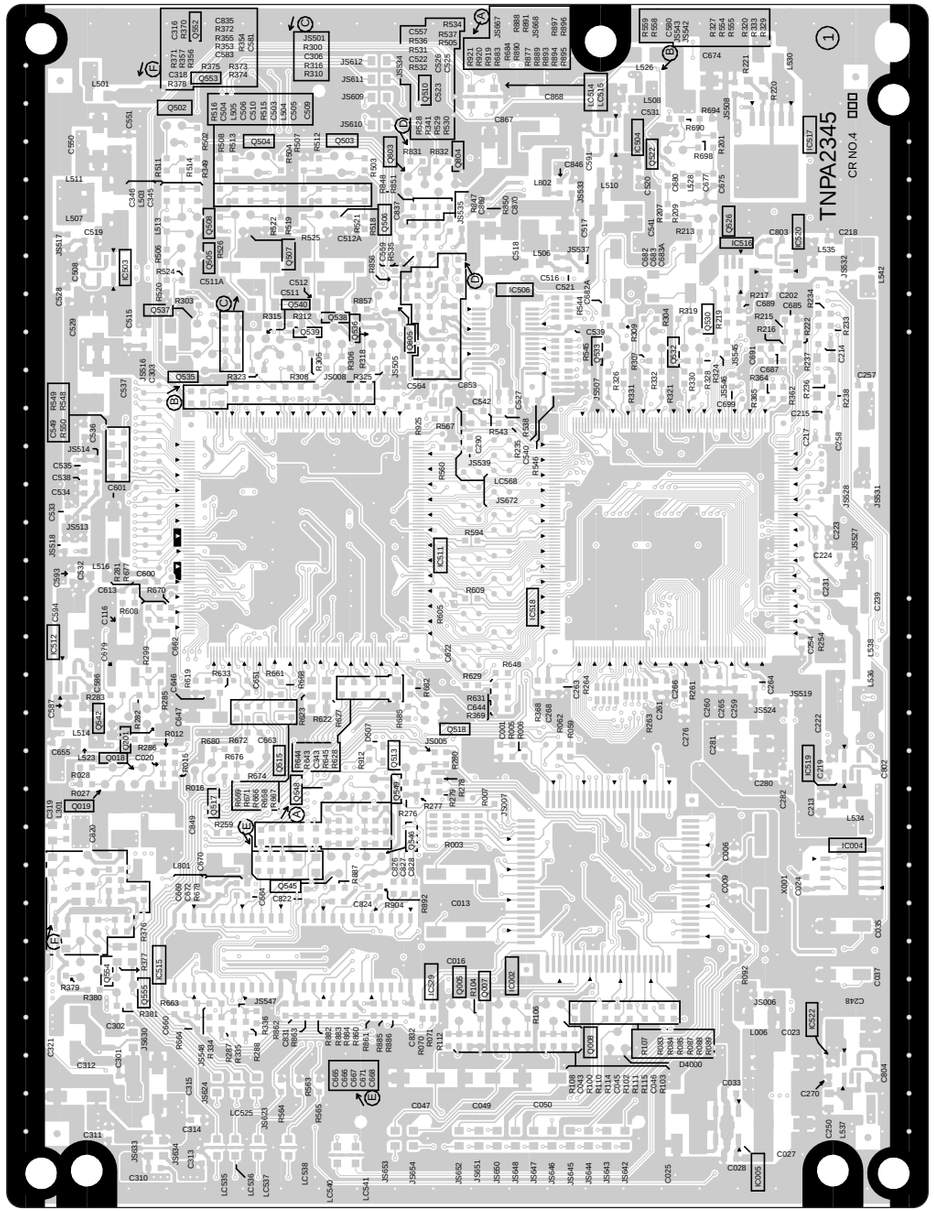
CT-34WX52 D-BOARD TXN/D10GCR, CT-30WX52 D-BOARD TXN/D10GDR



DG-BOARD (FOIL SIDE)
TXNDG10GCR



DG-BOARD (COMPONENT SIDE)
TXNDG10GCR

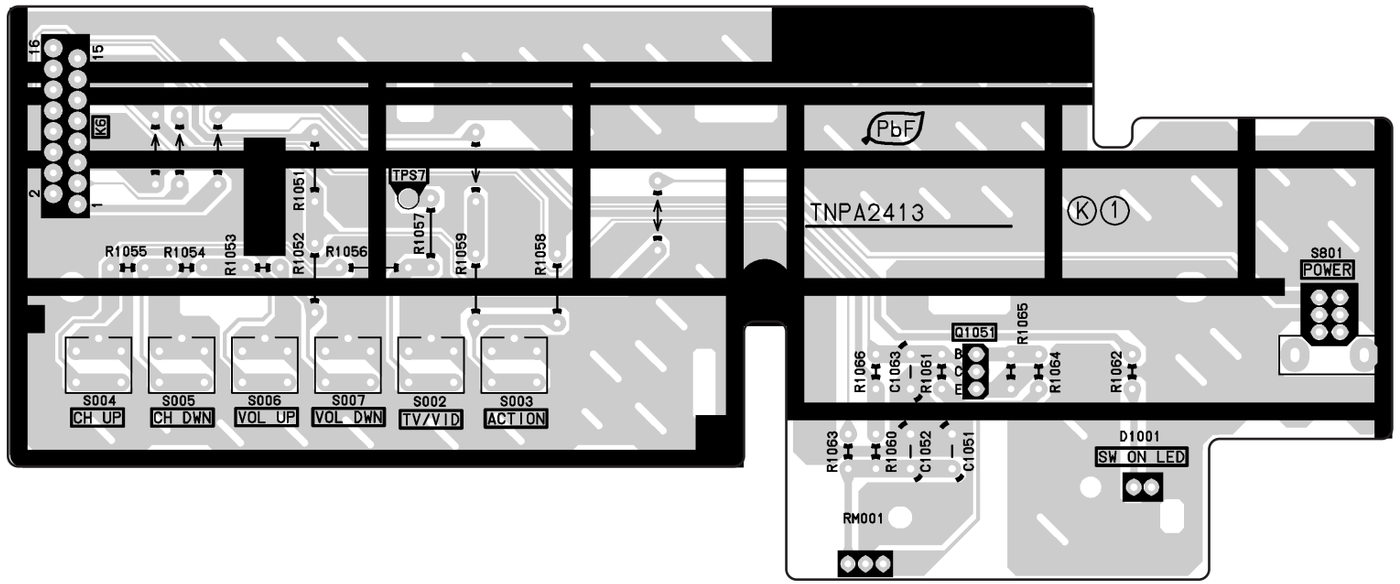


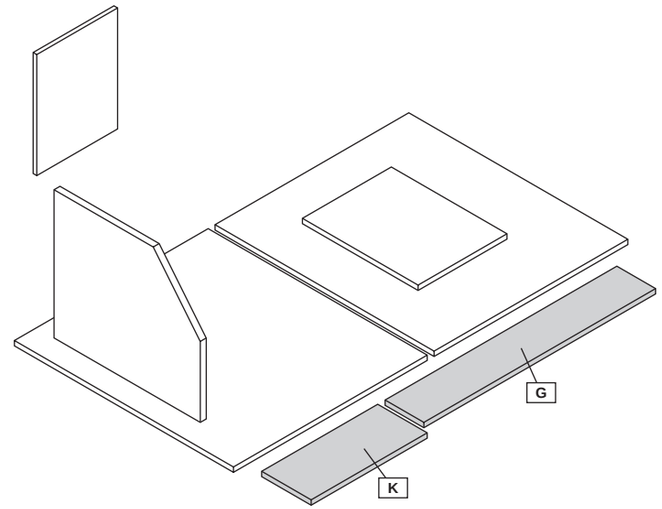
Parts Location

DG-BOARD			
IC		Q4505	E-4
		Q4506	E-4
IC4001	A-2	Q4507	E-4
IC4002	F-1	Q4508	E-4
IC4003	B-3	Q4509	E-4
IC4004	G-2	Q4510	F-5
IC4005	G-1	Q4511	D-2
IC4503	E-4	Q4512	D-1
IC4504	F-5	Q4513	E-2
IC4505	B-4	Q4514	D-2
IC4506	F-4	Q4515	E-2
IC4507	D-3	Q4517	E-2
IC4508	D-4	Q4518	F-2
IC4509	C-3	Q4519	C-1
IC4511	F-3	Q4520	D-1
IC4512	D-3	Q4521	B-5
IC4513	D-2	Q4522	F-5
IC4514	D-2	Q4523	B-5
IC4515	E-1	Q4524	D-1
IC4516	G-4	Q4525	B-4
IC4517	G-5	Q4526	G-4
IC4518	F-3	Q4527	A-4
IC4519	G-2	Q4530	G-4
IC4520	G-4	Q4532	G-4
IC4521	A-3	Q4533	F-4
IC4522	G-1	Q4534	B-4
IC4524	B-3	Q4535	E-4
IC4525	B-3	Q4536	E-4
IC4526	A-2	Q4537	E-4
IC4529	F-1	Q4538	E-4
IC4530	D-2	Q4539	E-4
IC4540	B-3	Q4540	E-4
IC4802	C-4	Q4541	A-2
		Q4542	D-2
TRANSISTOR		Q4543	B-4
Q4004	B-2	Q4544	B-4
Q4005	F-1	Q4545	E-2
Q4006	B-1	Q4546	F-2
Q4007	F-1	Q4547	C-2
Q4008	F-1	Q4548	E-2
Q4009	B-2	Q4549	F-2
Q4010	B-2	Q4550	B-2
Q4011	B-2	Q4551	C-2
Q4012	B-2	Q4552	E-5
Q4013	B-2	Q4554	D-1
Q4014	A-2	Q4555	E-1
Q4015	A-2	Q4801	C-4
Q4016	B-2	Q4802	C-4
Q4017	C-2	Q4803	F-5
Q4018	E-2	Q4804	F-5
Q4019	D-2	Q4805	B-4
Q4201	E-2	Q4806	F-4
Q4502	E-5		
Q4503	E-5		
Q4504	E-5		

CT-34WX52/CT-30WX52 DG-BOARD TXNDG10GCR

K-BOARD (TNPA2413)
(FOR CT-30WX52)

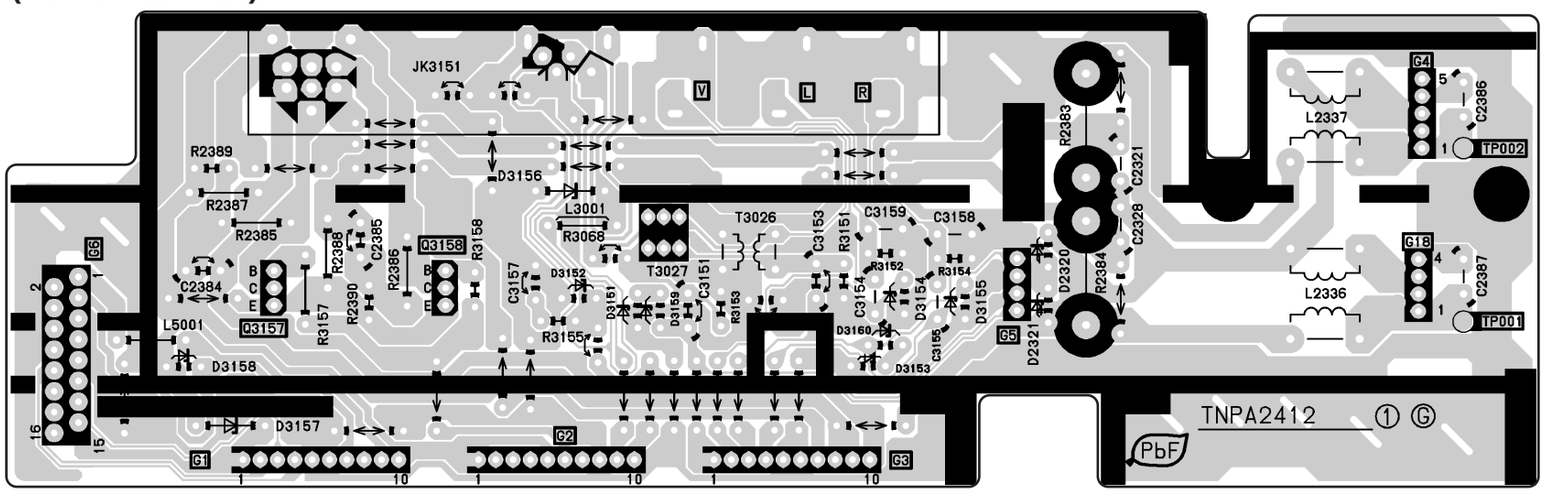




Parts Location

K-BOARD			
TRANSISTOR		**TP**	
Q1051	D-5	TPS7	B-5

G-BOARD (TNPA2412)
(FOR CT-30WX52)



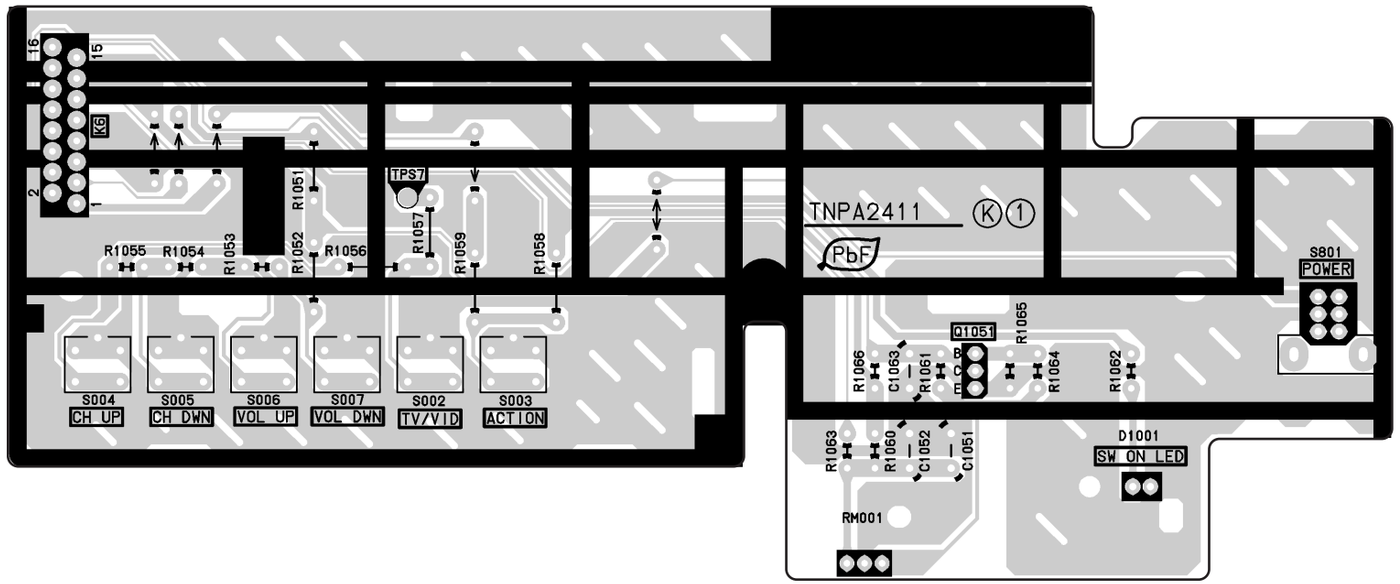
Parts Location

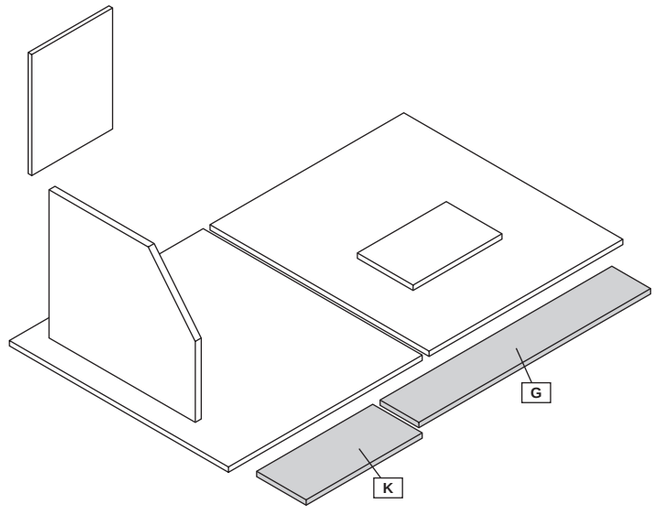
G-BOARD			
TRANSISTOR		**TP**	
Q3157	B-2	TP001	F-2
Q3158	B-2	TP002	F-2

CT-30WX52
G-BOARD TNPA2412
K-BOARD TNPA2413

CT-30WX52
G-BOARD TNPA2412
K-BOARD TNPA2413

K-BOARD (TNPA2411)
(FOR CT-34WX52)

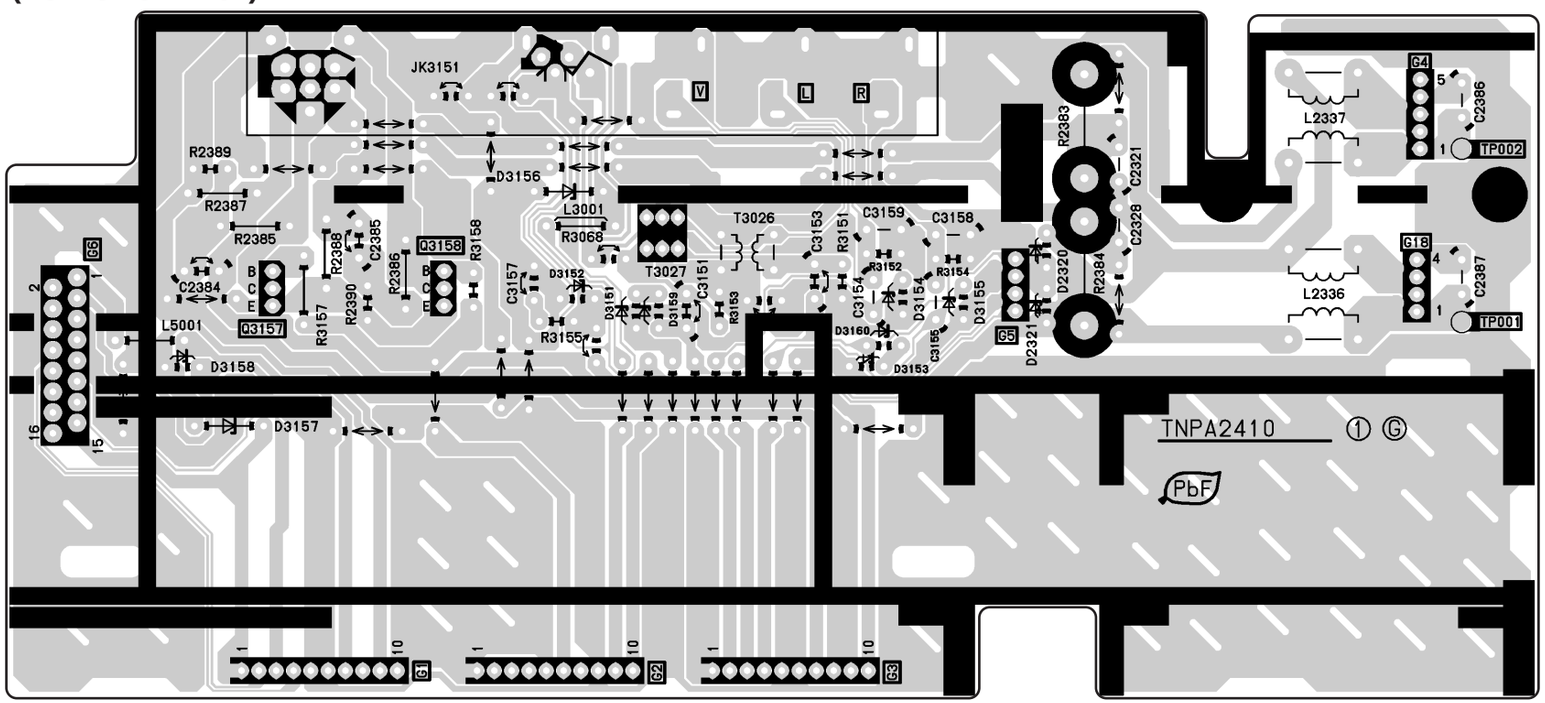




Parts Location

K-BOARD			
TRANSISTOR		**TP**	
Q1051	D-5	TPS7	B-5

G-BOARD (TNPA2410)
(FOR CT-34WX52)



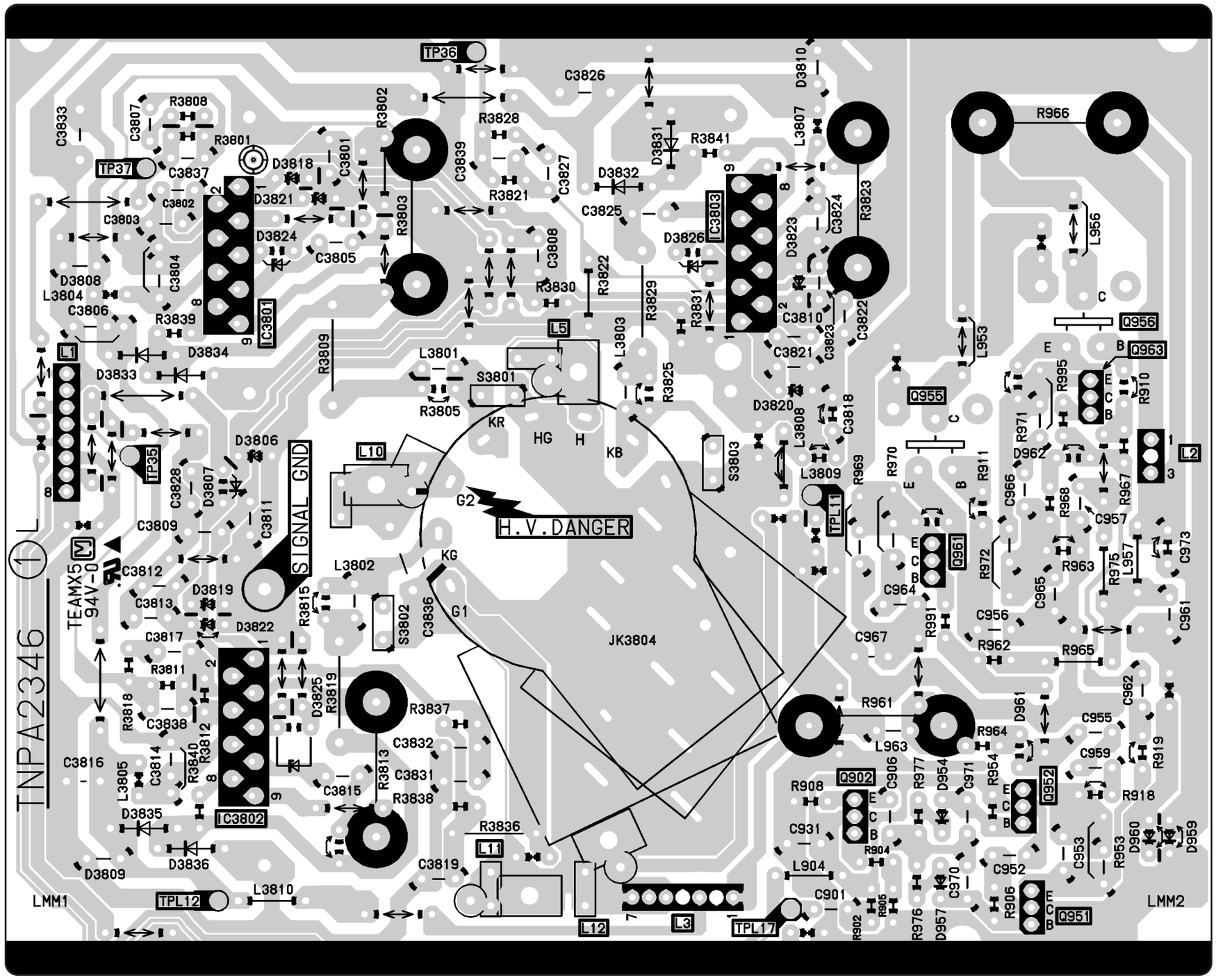
Parts Location

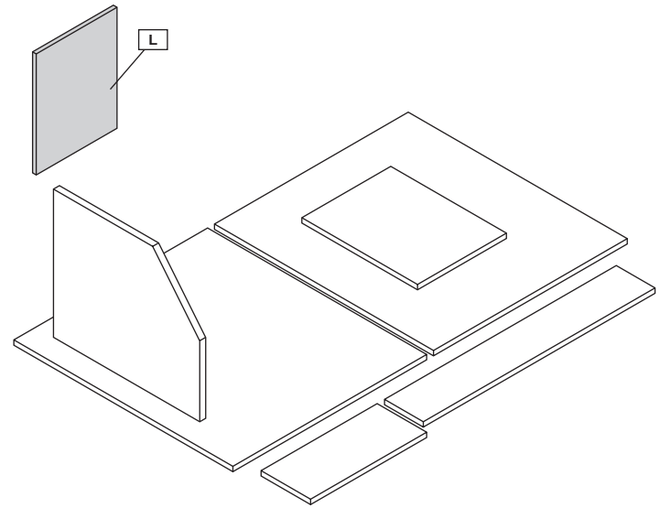
G-BOARD			
TRANSISTOR		**TP**	
Q3157	B-2	TP001	F-2
Q3158	B-2	TP002	F-3

CT-34WX52
G-BOARD TNPA2410 K-BOARD TNPA2411

CT-34WX52
G-BOARD TNPA2410
K-BOARD TNPA2411

L-BOARD (TXN/L10GCR)

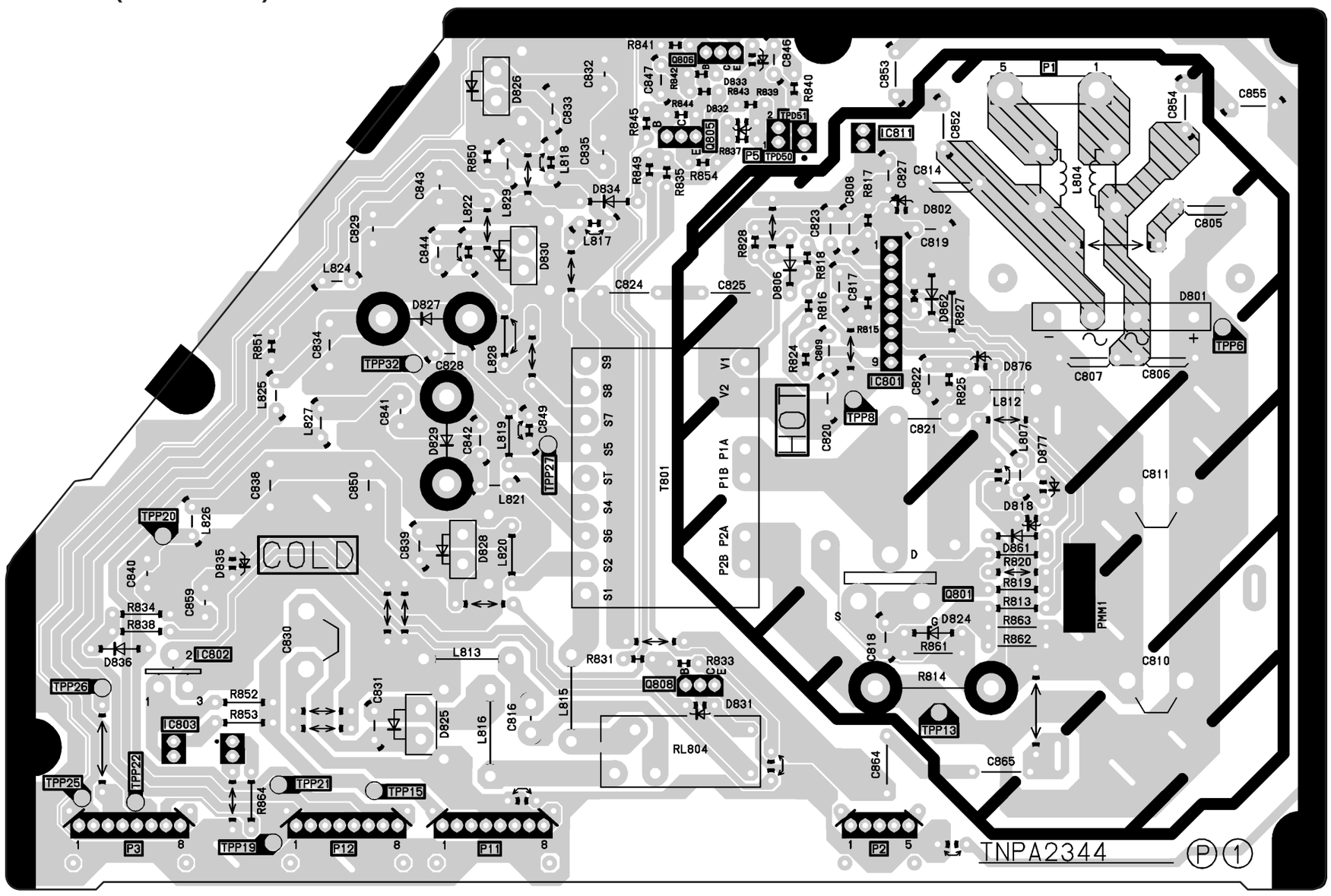


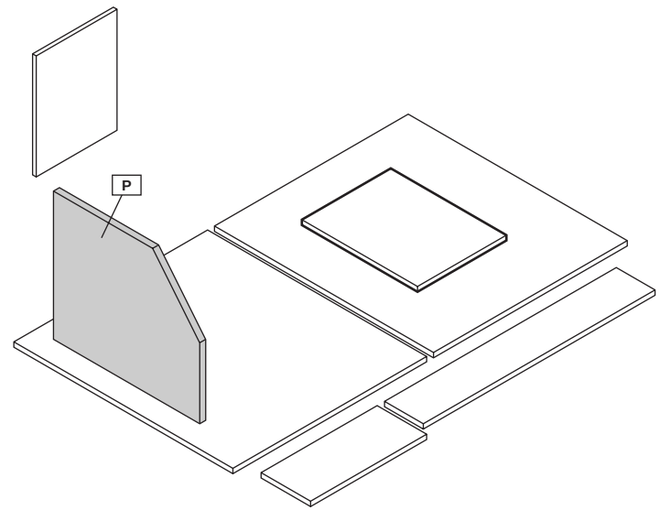


Parts Location

L-BOARD			
IC		**TP**	
IC3801	B-4	TP35	A-4
IC3802	B-2	TP36	C-6
IC3803	D-5	TP37	A-5
		TPL11	E-3
		TPL12	B-1
		TPL17	E-1
TRANSISTOR			
Q902	E-2		
Q951	F-1		
Q952	F-2		
Q955	E-4		
Q956	F-4		
Q961	E-3		
Q963	F-4		

P-BOARD (TXN/P10GCR)





Parts Location

P-BOARD			
IC		**TP**	
IC801	E-4	TPD50	D-5
IC802	A-2	TPD51	D-5
IC803	A-2	TPP6	F-4
IC811	E-5	TPP8	E-4
TRANSISTOR		TPP13	E-2
		TPP15	B-2
Q801	E-3	TPP19	B-1
Q805	D-5	TPP20	A-3
Q806	D-5	TPP21	B-2
Q808	D-2	TPP22	A-2
		TPP25	A-2
		TPP26	A-2
		TPP27	C-3
		TPP32	C-4

A-BOARD TNPH0465AC (1/2)

LANDING CORR.

IC4803
C0AABB000107

LANDING COIL
36V : 23.6 ohm 50T
32V : 37 ohm 90T

SOUND CONTROL
(W/H BBE)

IC2451
C1BB00000621

IC2304
C0ABBB000190

VAO

2nd TUNER

1st TUNER

ADD

IC2201
AN5849S-E1V

MTS

2RF SW

C1AA00000645 IC2302

AUDIO OUT
L/R

IC3003
C1AB00000459

AV SW

JK3001
TJBA193

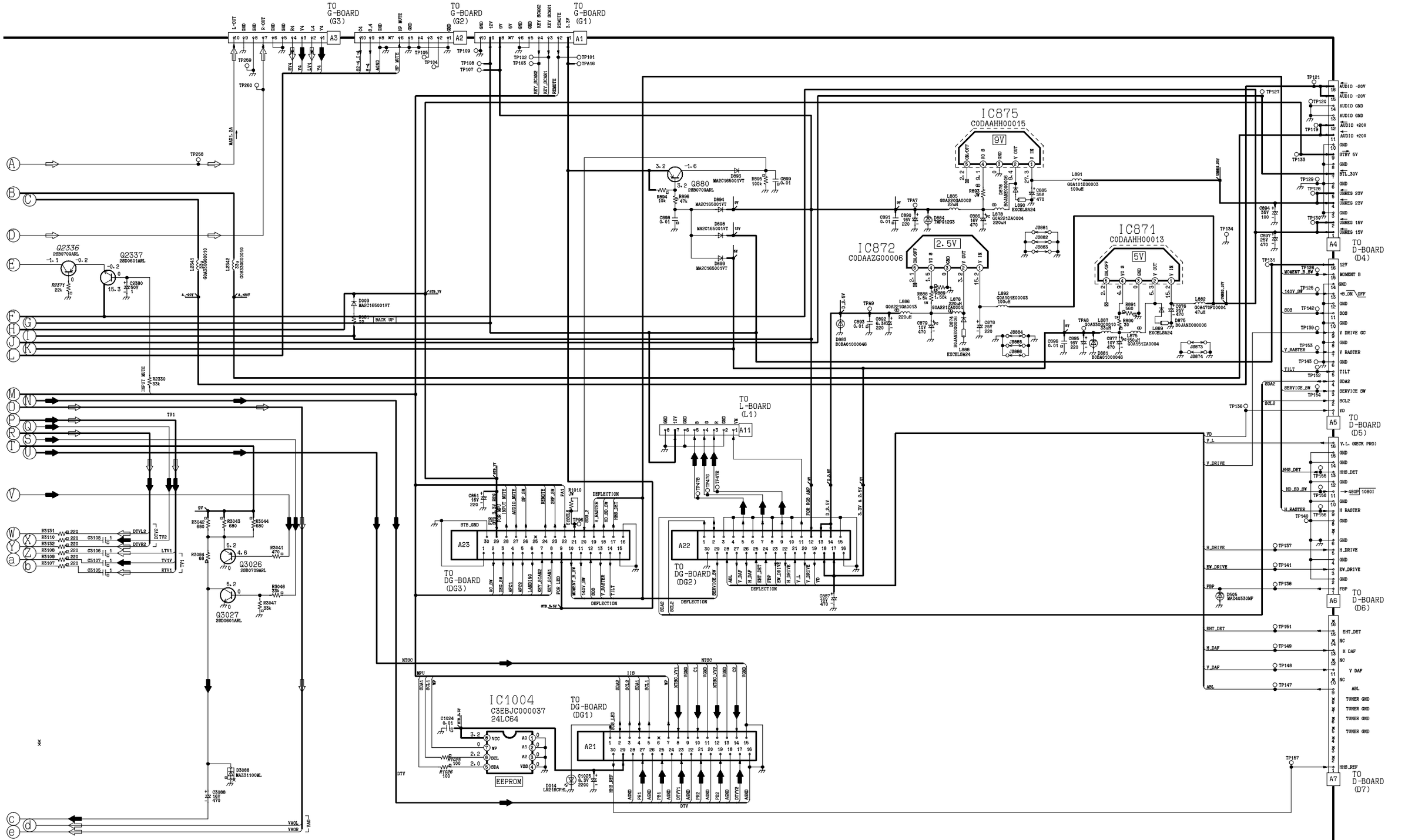
HOT

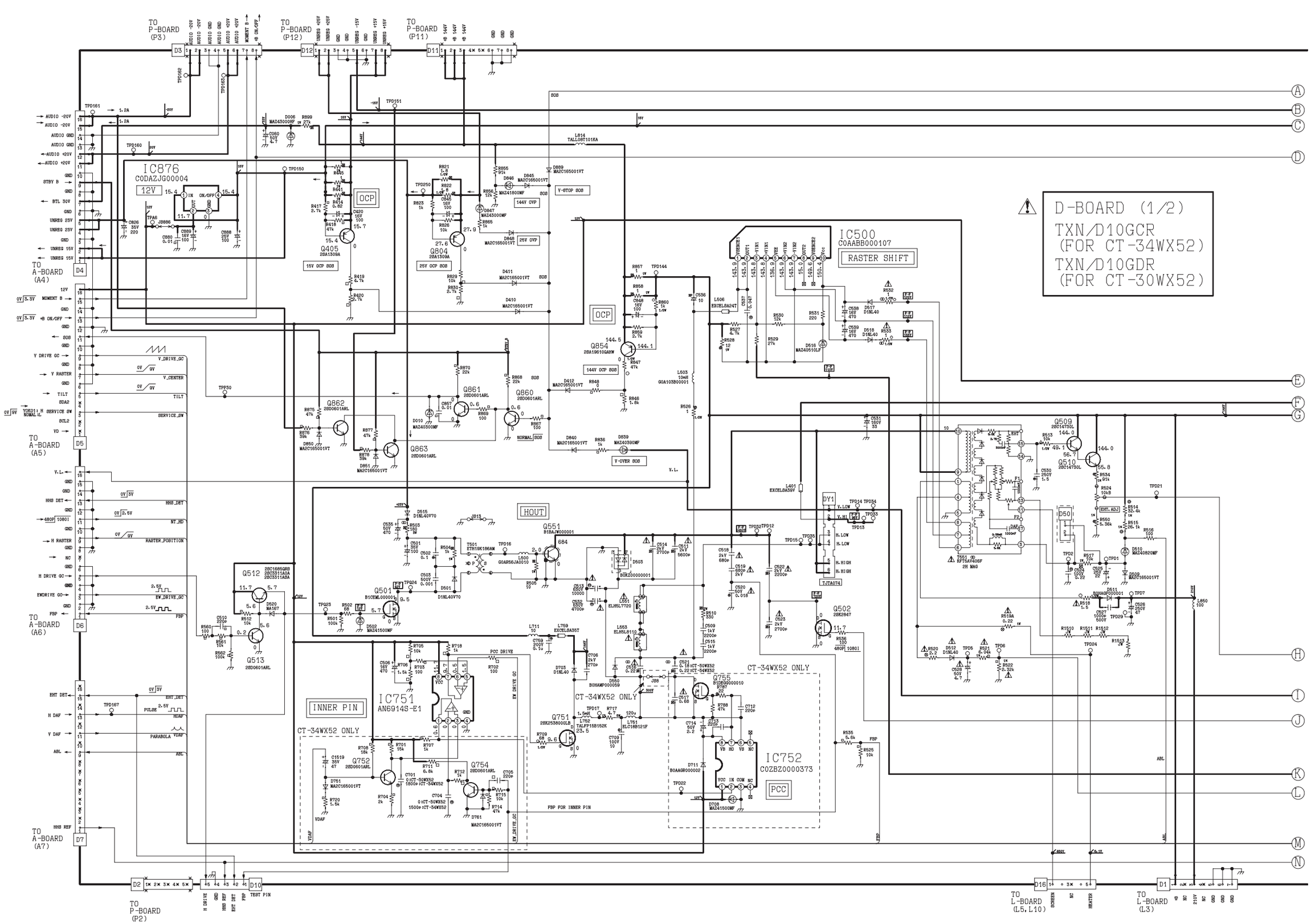
COLD

TO
P-BOARD
(P1)

TO
D-BOARD
(D14)

CT-34WX52/CT-30WX52 A-Board (1 of 2) Schematic Diagram


TO G-BOARD (G3)
TO G-BOARD (G2)
TO G-BOARD (G1)
IC875
C0DAAHH00015
9V
IC872
C0DAAZG00006
2.5V
IC871
C0DAAHH00013
5V
Q880
2SB0709ARL
Q2336
2SB0709ARL
Q2337
2SD0601ARL
Q3026
2SB0709ARL
Q3027
2SD0601ARL
IC1004
C3EBJC000037
24LC64
EEPROM
TO L-BOARD (L1)
TO DG-BOARD (DG3)
TO DG-BOARD (DG2)
TO DG-BOARD (DG1)
TO D-BOARD (D4)
TO D-BOARD (D5)
TO D-BOARD (D6)
TO D-BOARD (D7)
BACK UP
INPUT MUTE
DEFLECTION
A-BOARD TNPH0465AC (2/2)



CT-34WX52/CT-30WX52 D-Board (1 of 2) Schematic Diagram

CT-34WX52/CT-30WX52 D-Board (1 of 2) Schematic Diagram

D-BOARD (2/2)
TXN/D10GCR
(FOR CT-34WX52)
TXN/D10GDR
(FOR CT-30WX52)

IC451
LA7876N
VOUT

IC433
AN6562S
C0ABBA000073

IC432
AN6562S
C0ABBA000073

IC511
AN6914S
C0BBBA000043

IC1501
AN6562S
C0ABBA000073

FOCUS PROTECTOR

RASTER POSITION

EHT DET

DAF

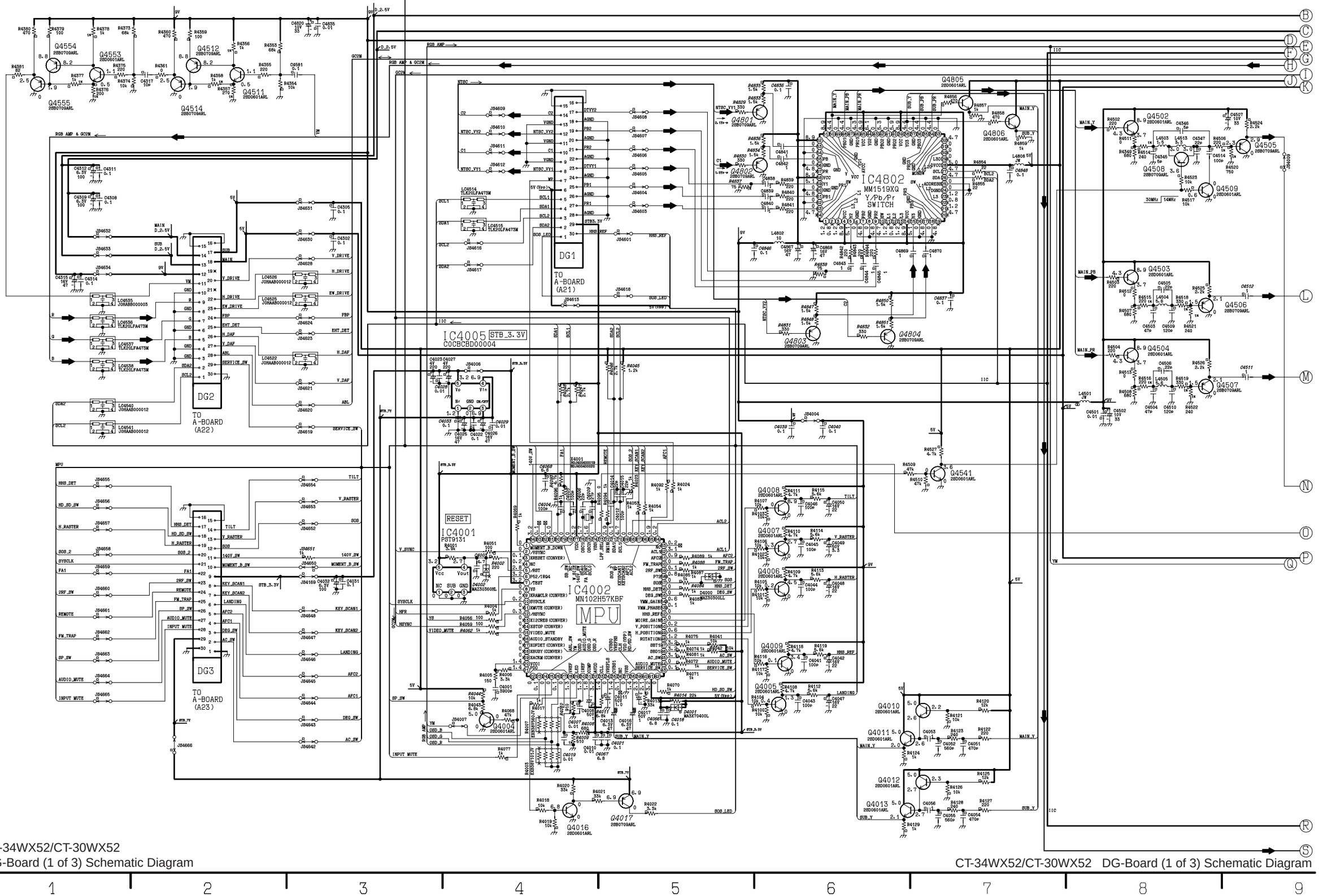
V DRIVE

TO A-BOARD (A14)

CT-34WX52/CT-30WX52
D-Board (2 of 2) Schematic Diagram

CT-34WX52/CT-30WX52
D-Board (2 of 2) Schematic Diagram

DG-BOARD TXNDG10GCR (1/3)



CT-34WX52/CT-30WX52
DG-Board (1 of 3) Schematic Diagram

CT-34WX52/CT-30WX52 DG-Board (1 of 3) Schematic Diagram

DG-BOARD TXNDG10GCR (2/3)

RGB PROCESSOR
MAIN SIGNAL PROCESSOR
3D COMB

ver.2_for_Main_processor
Global_tvsiginal_processing_CoreLSI
GC2M

< SLAVE > 88 / 8A (TEST=0)
8C / 8E (TEST=1 & YSVM=0)

IC4540 COJBAB000382 TC7WU04FUEL
IC4509 PST9128
IC4508 C0DBEZG00004
IC4504 C0CBCBD00006 PQ1X331M2ZP
IC4505 C0CBCBD00006 PQ1X331M2ZP
IC4506 C0FBAF000040 (ANALOG DEVICES) MAIN A/D 10bit AD9214 50MSPS
IC4503 C0CBCBD00006 PQ1X331M2ZP
IC4507 C5HBKZ000001 5M FIFO (For 3D-COMB)
IC4511 C1ZBZ0001989
IC4512 C0CBCAD00006 PQ1X251M2ZP
IC4513 C0CBCBD00006 PQ1X331M2ZP
IC4515 AN5876S-E1V
IC4529 AN5876S-E1V
XTAL
DA Macro
AD Macro
For BurstLock PLL Macro
For Mid_CLK PLL Macro
For FBP PLL Macro
Q4536 2SD1030OTL
Q4538 2SD1030OTL
Q4540 2SD0601ARL
Q4510 2SD0601ARL
Q4518 2SB0709ARL
Q4551 2SB0709ARL
Q4545 2SD0601ARL
Q4546 2SD0601ARL
Q4547 2SD0601ARL
Q4515 2SB0709ARL
Q4542 2SD0601ARL
Q4201 2SB0709ARL

CT-34WX52/CT-30WX52 DG-Board (2 of 3) Schematic Diagram

⚠ DG-BOARD TXNDG10GCR (3/3)

GC2S

I/P CONVERSION
SUB SIGNAL PROCESSOR
3-LINE COMB
IC4518
C1ZBZ00001988

< SLAVE > 24 / 26 (TEST=0)
28 / 2A (TEST=1 & YSVM=0)

IC4520
C0CBCBD00006
PQ1X331M2ZP

IC4519
C0CBCAD00006
PQ1X251M2ZP

IC4526
C0CBCBD00006
PQ1X331M2ZP

IC4530
C0JBAM000065

IC4517
C0DBEZG00004

IC4525
C3ABPJ000017
(2M×32Bit)
64MBit SDRAM

Macro PLL For Mid_CLK

Macro PLL For SGRAM

Macro XTAL

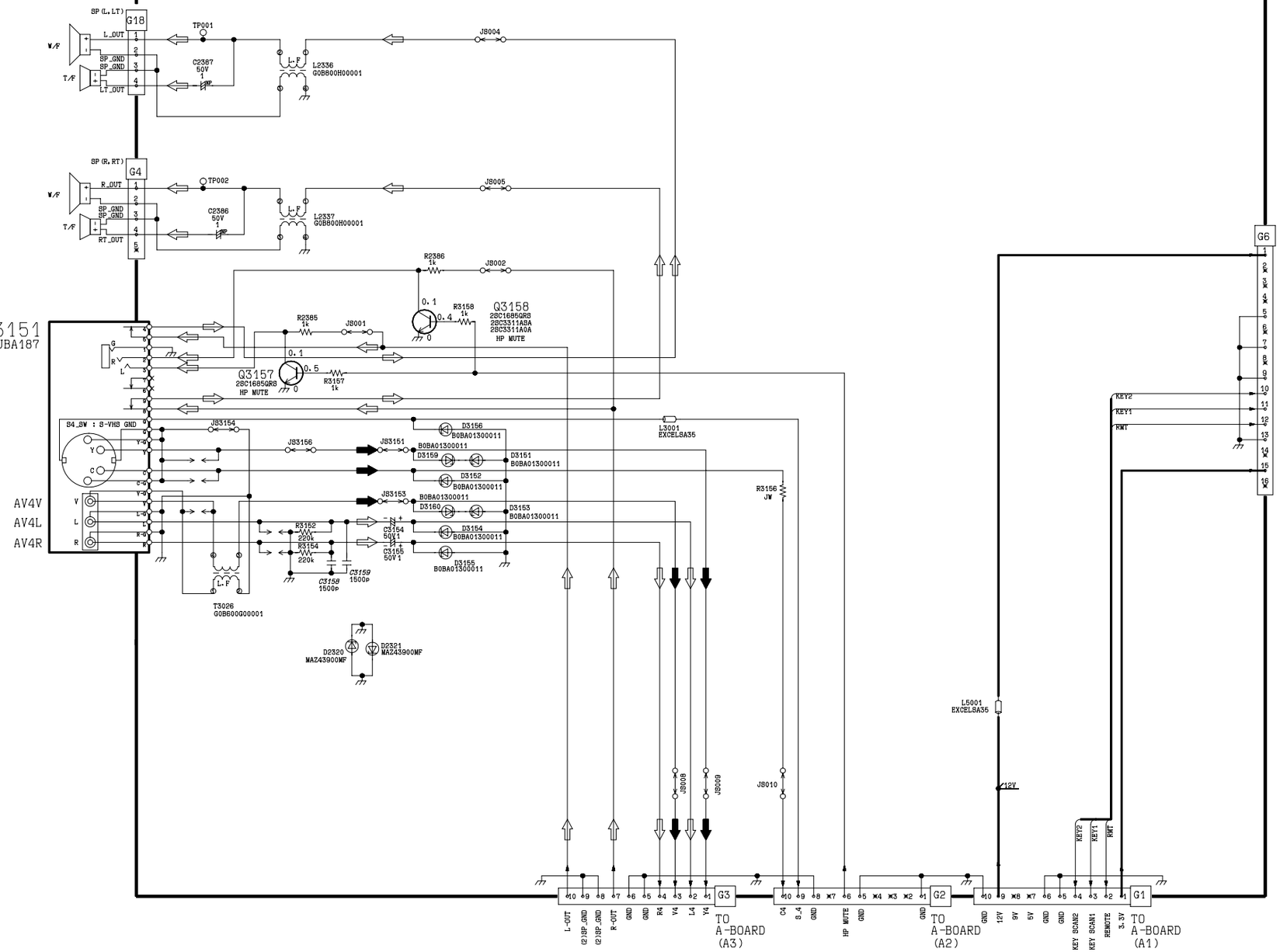
AD Macro

DA

CT-34WX52/CT-30WX52 DG-Board (3 of 3) Schematic Diagram

⚠ G-BOARD TNPA2410 (FOR CT-34WX52)
TNPA2412 (FOR CT-30WX52)

⚠ K-BOARD
TNPA2411
(FOR CT-34WX52)
TNPA2413
(FOR CT-30WX52)



CT-34WX52/CT-30WX52
G and K-Board Schematic Diagram

L-BOARD TXN/L10GCR

IC3801 C1AA00000648 R
IC3802 C1AA00000648 G
IC3803 C1AA00000648 B

CATHODE DRIVE

VM AMP.

TO A-BOARD (A11)

TO D-BOARD (D16-1pin)

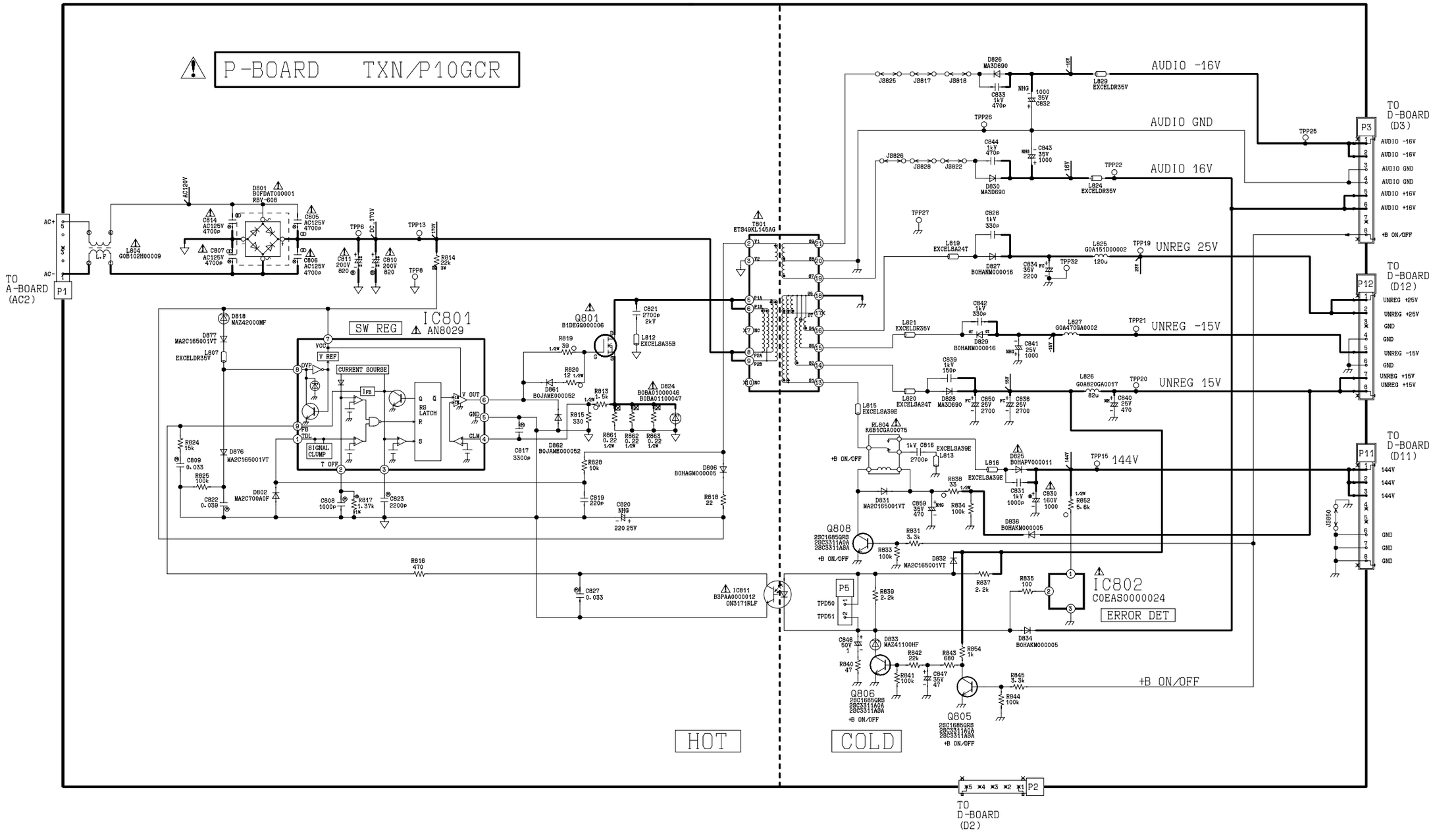
TO D-BOARD (D16-5pin)

TO D-BOARD (D1)

CT-34WX52:A90LSW195X
CT-30WX52:A80LSW195X

VM COIL

CT-34WX52/CT-30WX52 L-Board Schematic Diagram



CT-34WX52/CT-30WX52
P-Board Schematic Diagram

CT-34WX52/CT-30WX52
P-Board Schematic Diagram

11 Schematic Diagrams

11.1. Schematic Diagram Notice

Important Safety Notice

Components identified by ⚠ mark have special characteristics important for safety.
When replacing any of these components, use only manufacture's specified parts.

Notes:

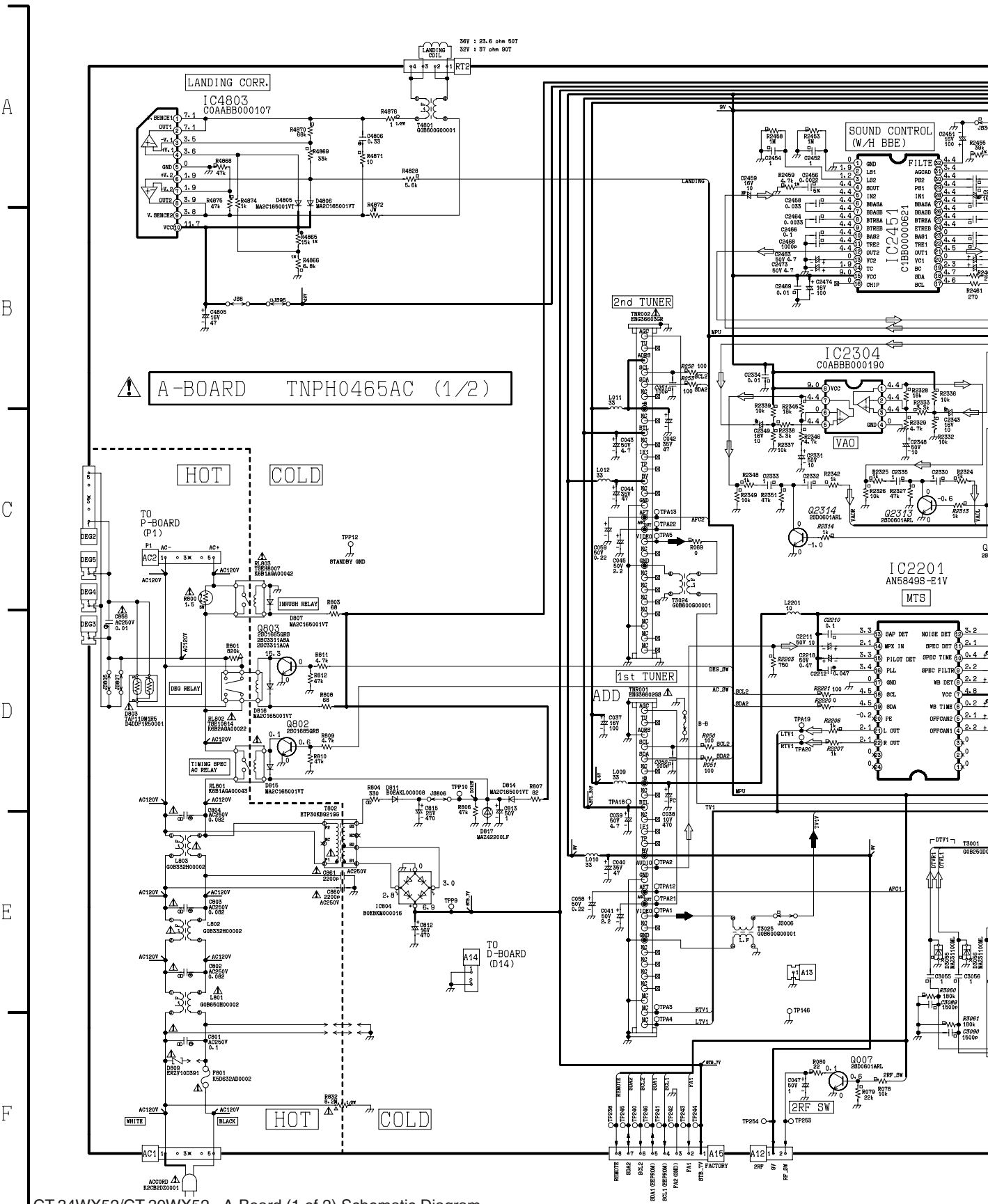
1. **Resistor**
   All resistors are cabon 1/4W resistor, unless marked as follows:
   Unit of resistance is OHM [Ω] (K=1,000, M=1,000,000).
   - ◯ : Nonflammable
   - △ : Solid
   - ▨ : Wire Wound
   - ⊠ : Metal Oxide
   - ◎ : Metal Film
   - ⊗ : Fuse:
2. **Capacitor**
   All capacitors are ceramic 50V capacitor, unless marked as follows:
   Unit of capacitance is μF, unless otherwise noted.
   - ⊗ : Temperature Compensation
   - Ⓜ : Polyester
   - ⓜ : Metalized Polyester
   - ⊠ : Polypropylene
   - : Electrolytic
   - : Bipolar
   - Ⓣ : Dipped Tantalum
   - Ⓩ : Z-Type
3. Coil
   Unit of inductance is μF, unless otherwise noted.
4. Test Point
   - ⚲ : Test Point position
5. Earth Symbol
   - ⏚ : Chassis Earth (Cold)
   - ⏚ : Line Earth (Hot)
6. Voltage Measurement
   Voltage is measured by a DC voltmeter.
   Conditions of the measurement are the following:
   - Power Source ..... AC 120V, 60Hz
   - Receiving Signal ..... Colour Bar signal (RF)
   - All customer's controls ..... Maximum positions
7. Number in red circle indicates waveform nember.
   (See waveform pattern table.)
8. When arrow mark (↗) is found, connection is easily found from the direction of arrow
9. Indicates the major signal flow. : Video ➡ Audio ⇨
10. This schematic diagram is the latest at the time of printing and subject to change without notice.

Remote Control Transmitter

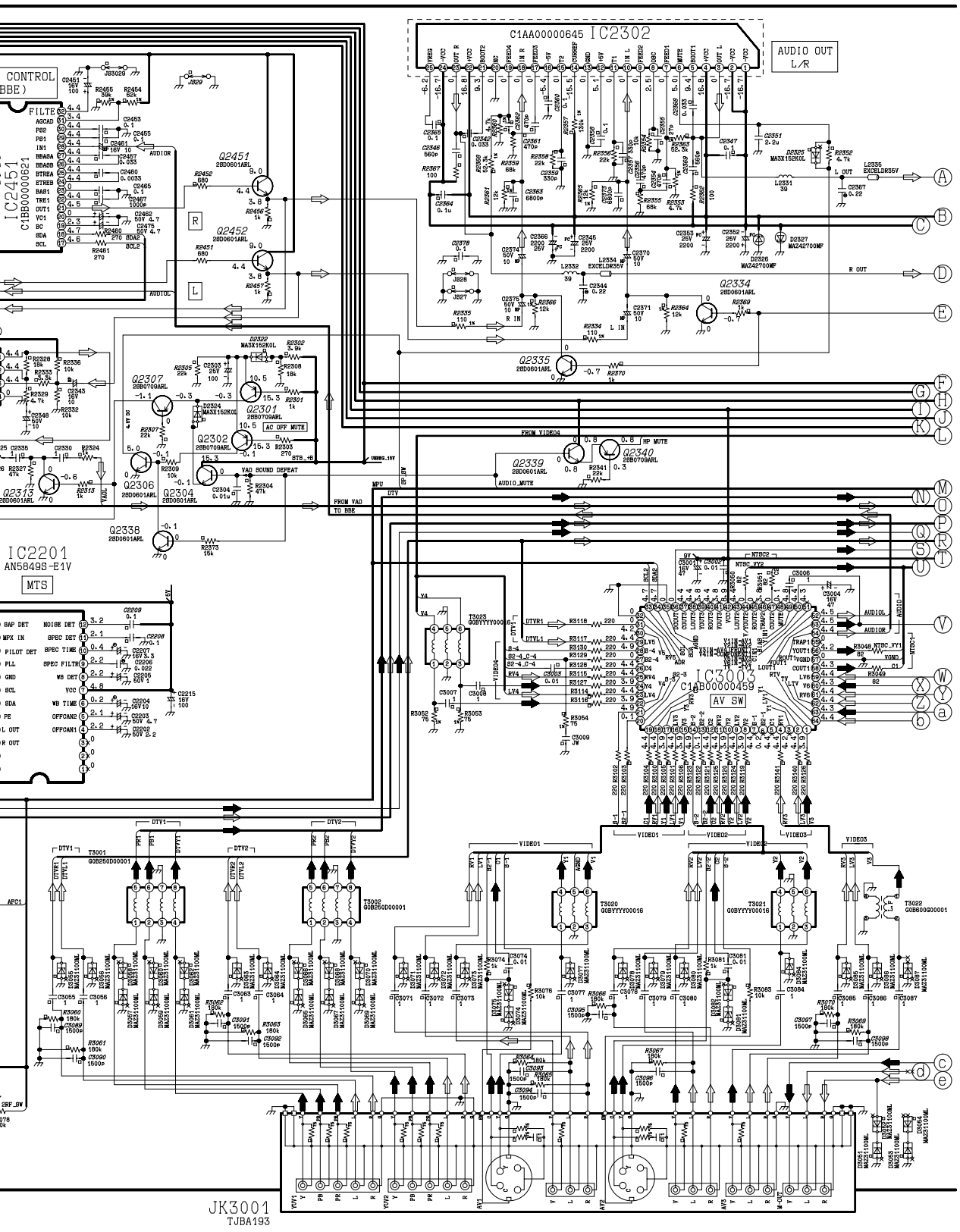
Remarks:

1. The Power Circuit contains a circuit area which uses a separate power supply to isolate the earth connection.
   The circuit is defined by HOT and COLD indications in the schematic diagram. Take the follwing precautions.
   All circuits, except the Power Circuit, are cold.
   Precautions
   a. Do not touch the hot part or the hot and cold parts at the same time or you may be shocked.
   b. Do not short- circuit the hot and cold circuits or a fuse may blow and parts may break.
   c. Do not connect an instrument, such as an oscilloscope, to the hot and cold circuits simultaneously or a fuse may blow.
   Connect the earth of instruments to the earth connection of the circuit being measured.
   d. Make sure to disconnect the power plug before removing the chassis.
2. Following diodes are interchangeable.
   MA150- MA162 (Replacement part)

11.2. A-Board (1 of 2) Schematic Diagram



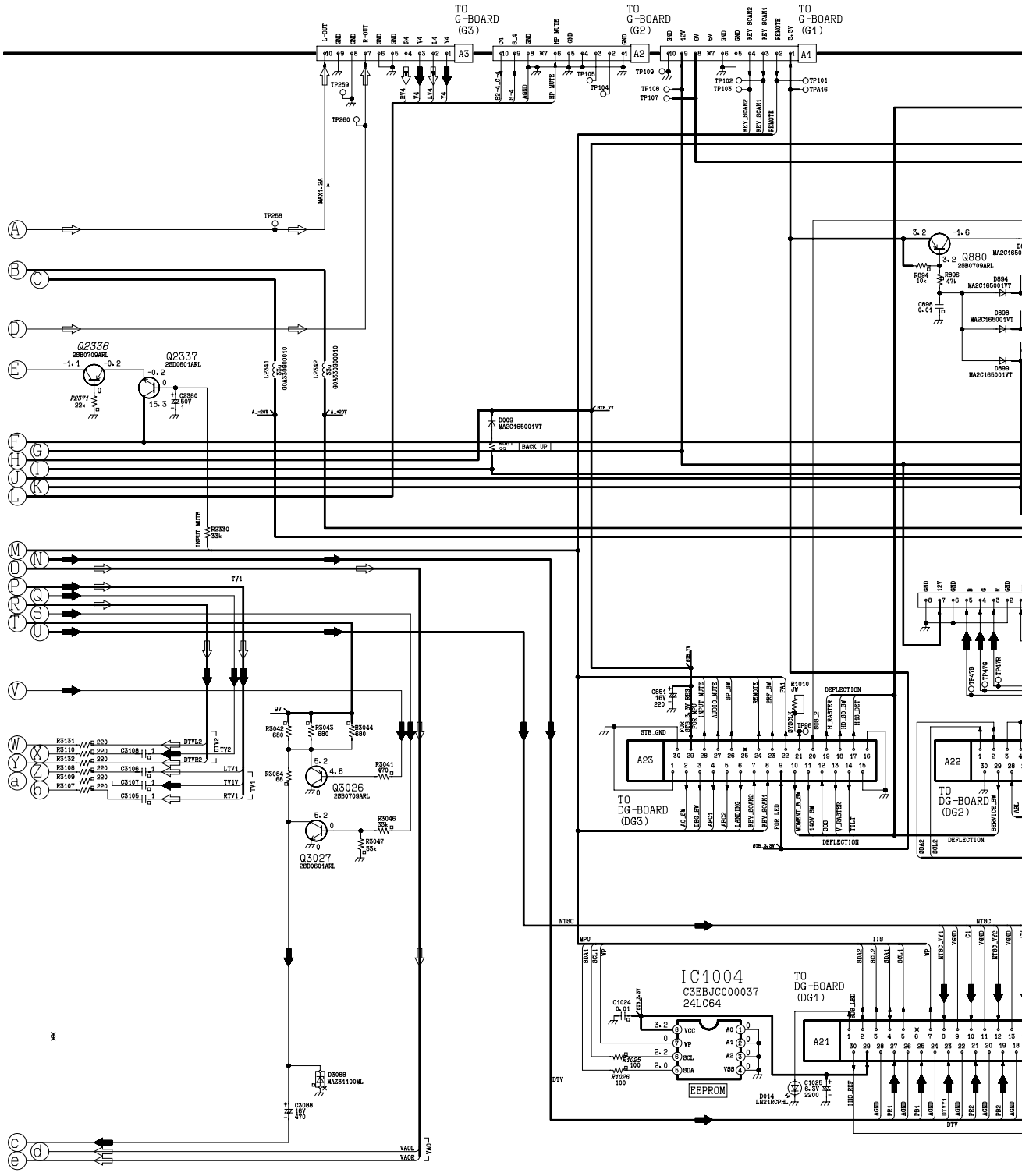
CT-34WX52/CT-30WX52 A-Board (1 of 2) Schematic Diagram

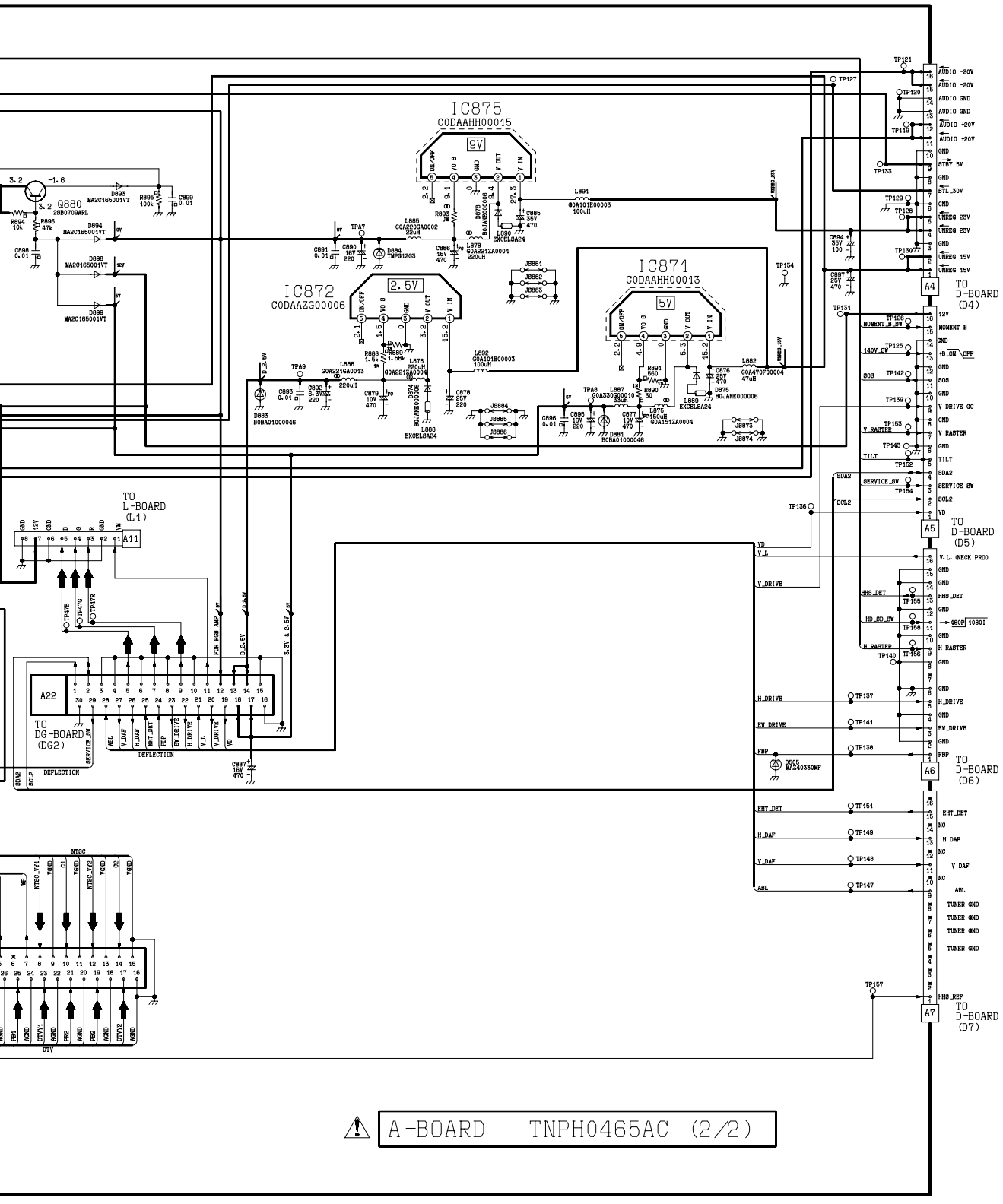


CT-34WX52/CT-30WX52 A-Board (1 of 2) Schematic Diagram

5 6 7 8 9

11.3. A-Board (2 of 2) Schematic Diagram



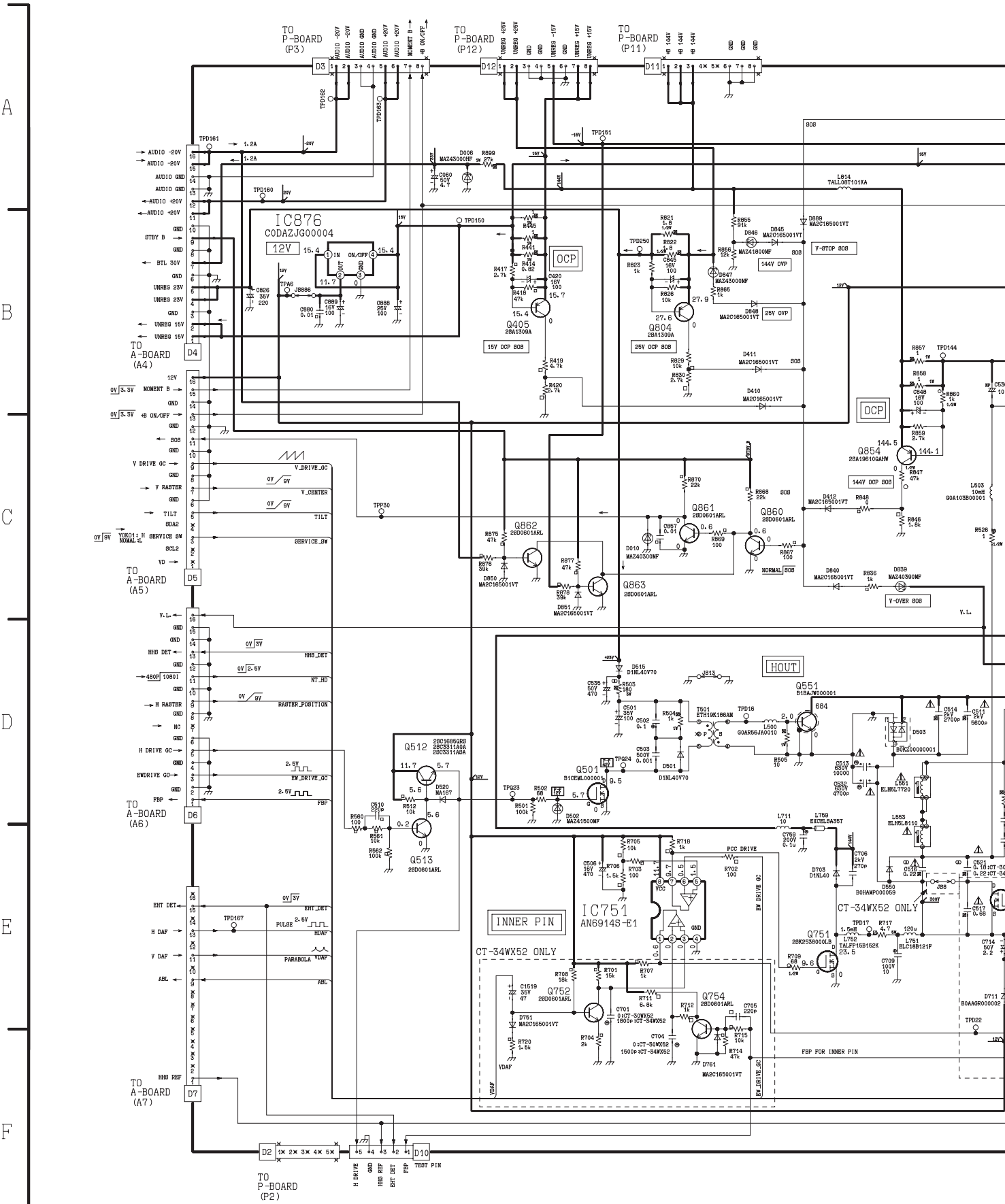


⚠ A-BOARD TNPH0465AC (2/2)

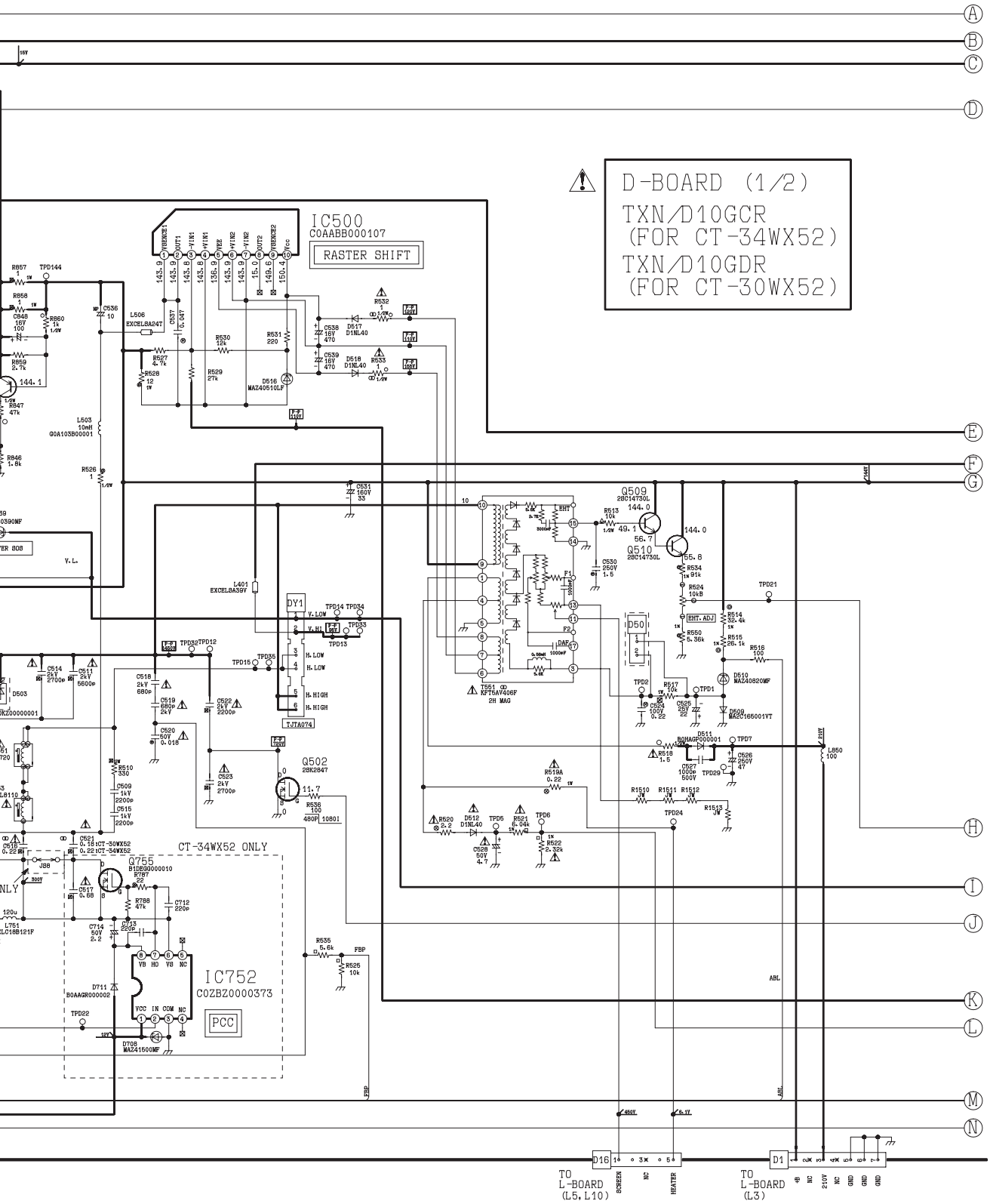
CT-34WX52/CT-30WX52
A-Board (2 of 2) Schematic Diagram

13 14 15 16 17

11.4. D-Board (1 of 2)Schematic Diagram

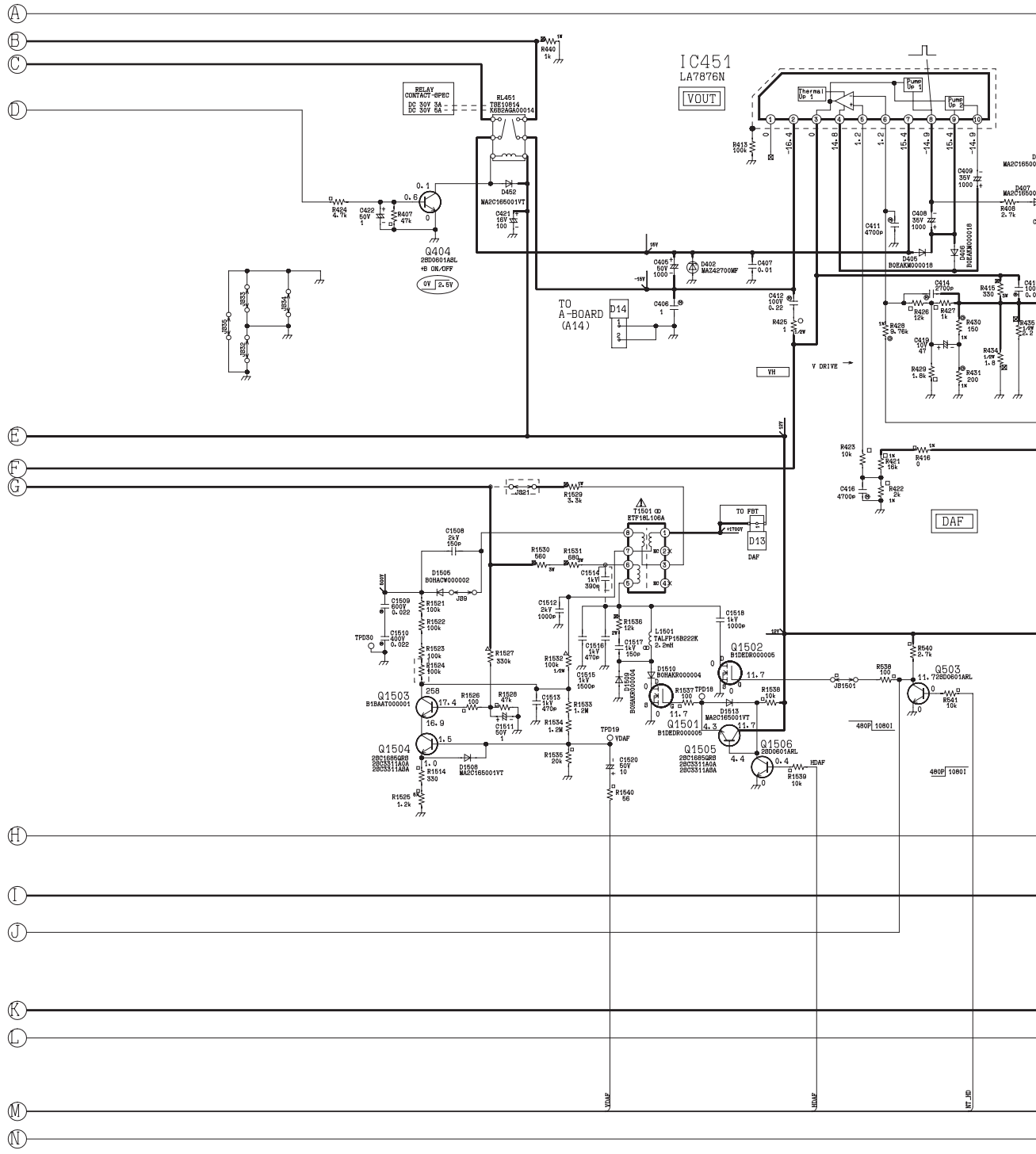


CT-34WX52/CT-30WX52 D-Board (1 of 2) Schematic Diagram



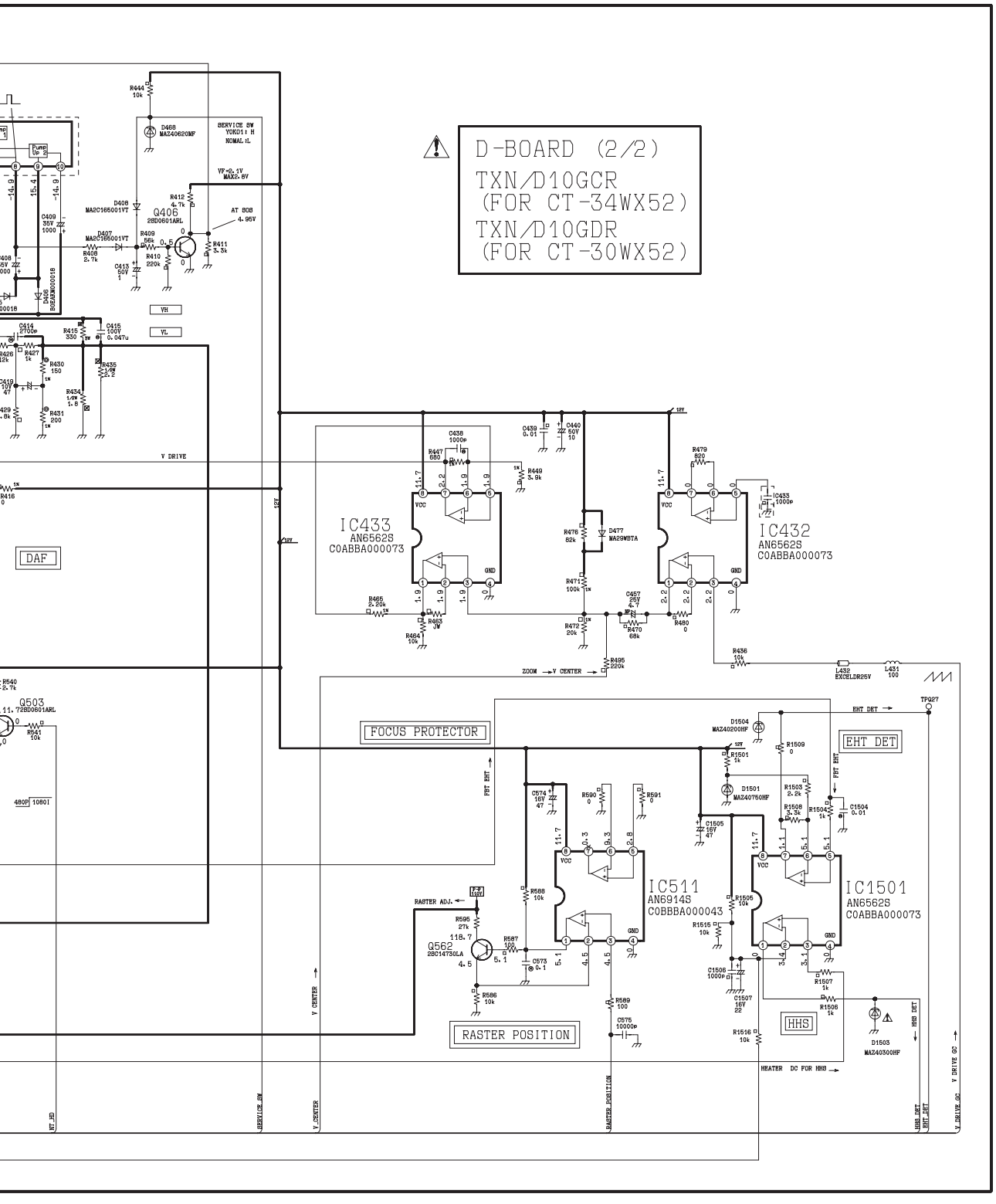
CT-34WX52/CT-30WX52 D-Board (1 of 2) Schematic Diagram

11.5. D-Board (2 of 2)Schematic Diagram



CT-34WX52/CT-30WX52
D-Board (2 of 2) Schematic Diagram

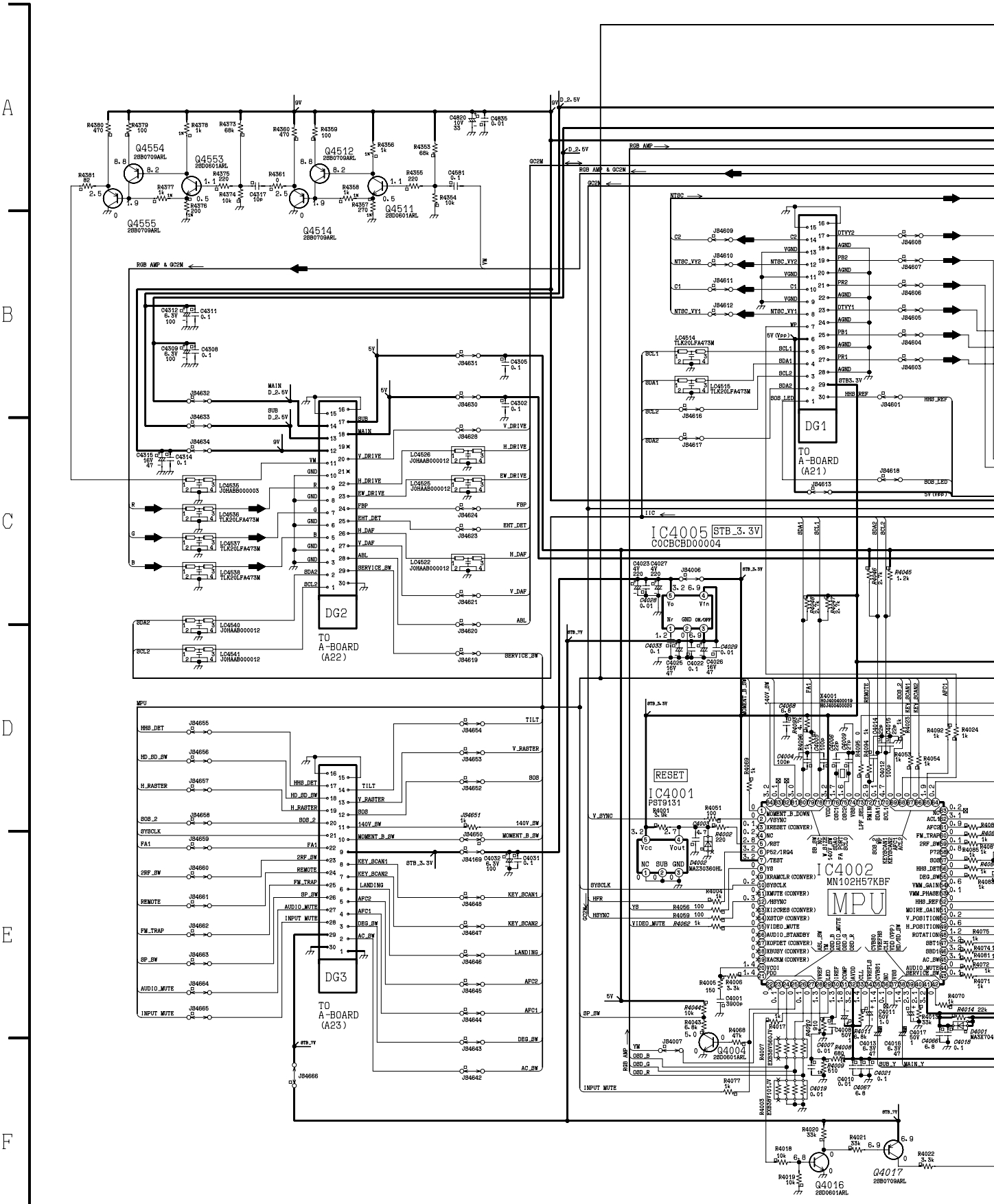
9 | 10 | 11 | 12 | 13



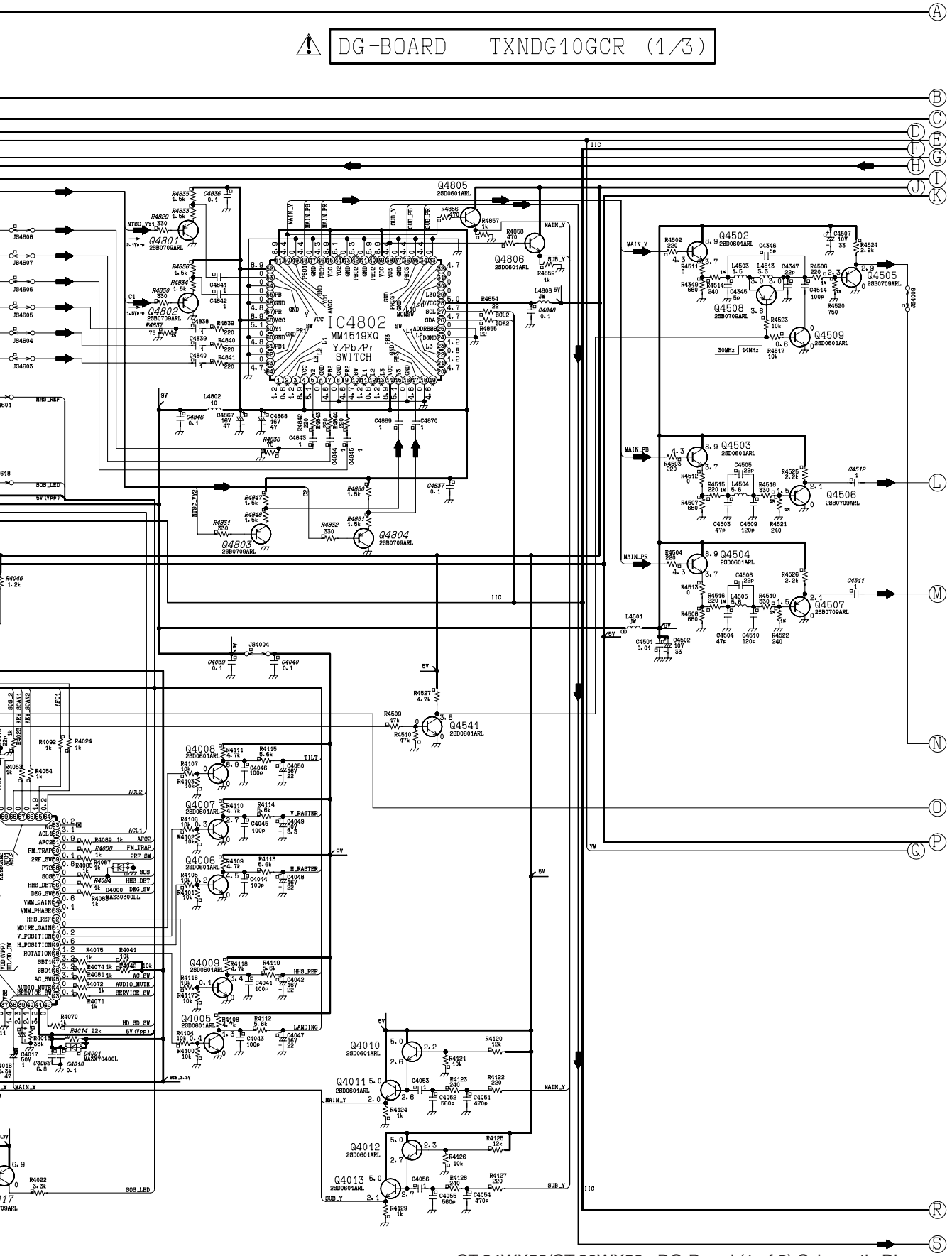
CT-34WX52/CT-30WX52
D-Board (2 of 2) Schematic Diagram

13 14 15 16 17

11.6. DG-Board (1 of 3) Schematic Diagram

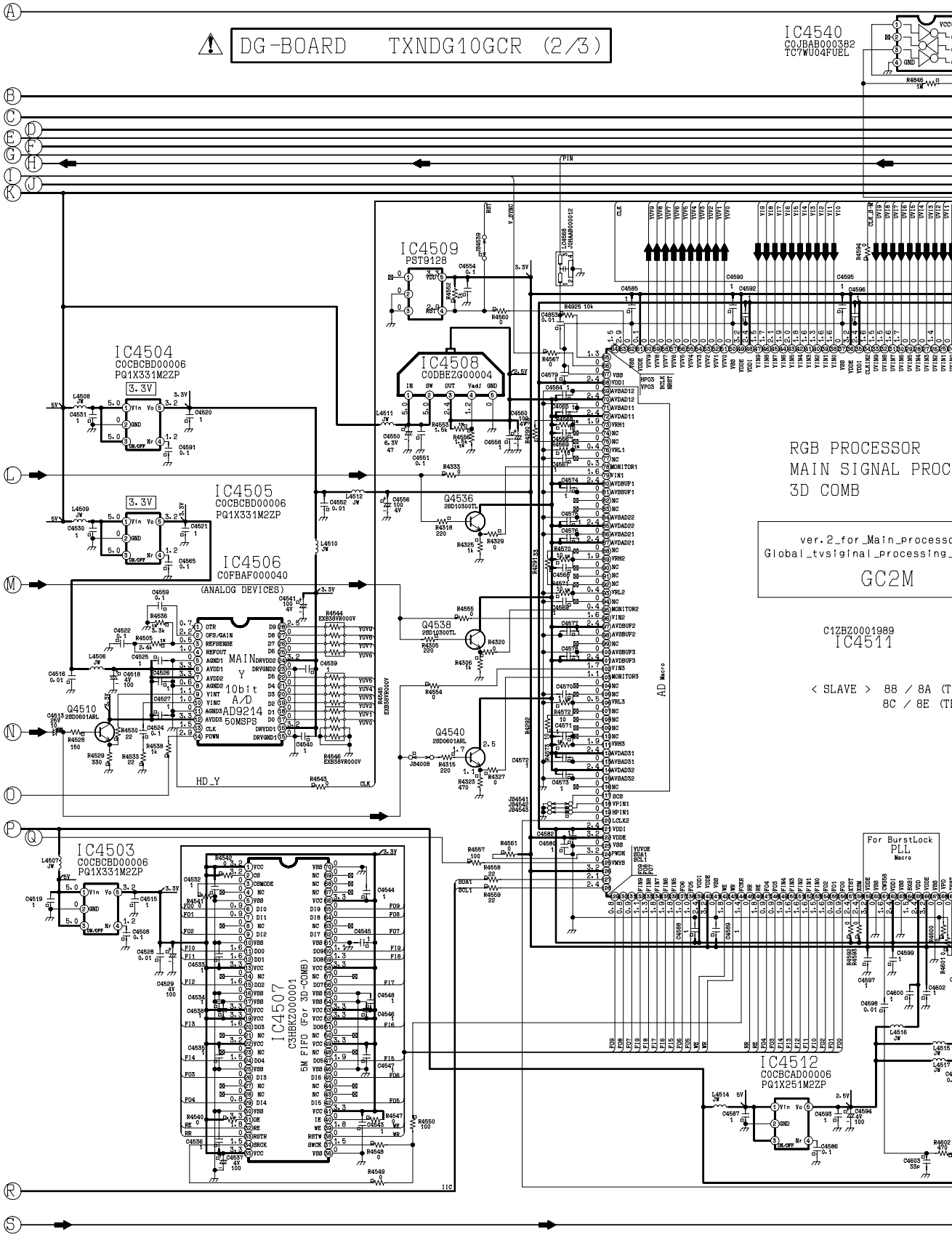


CT-34WX52/CT-30WX52
DG-Board (1 of 3) Schematic Diagram



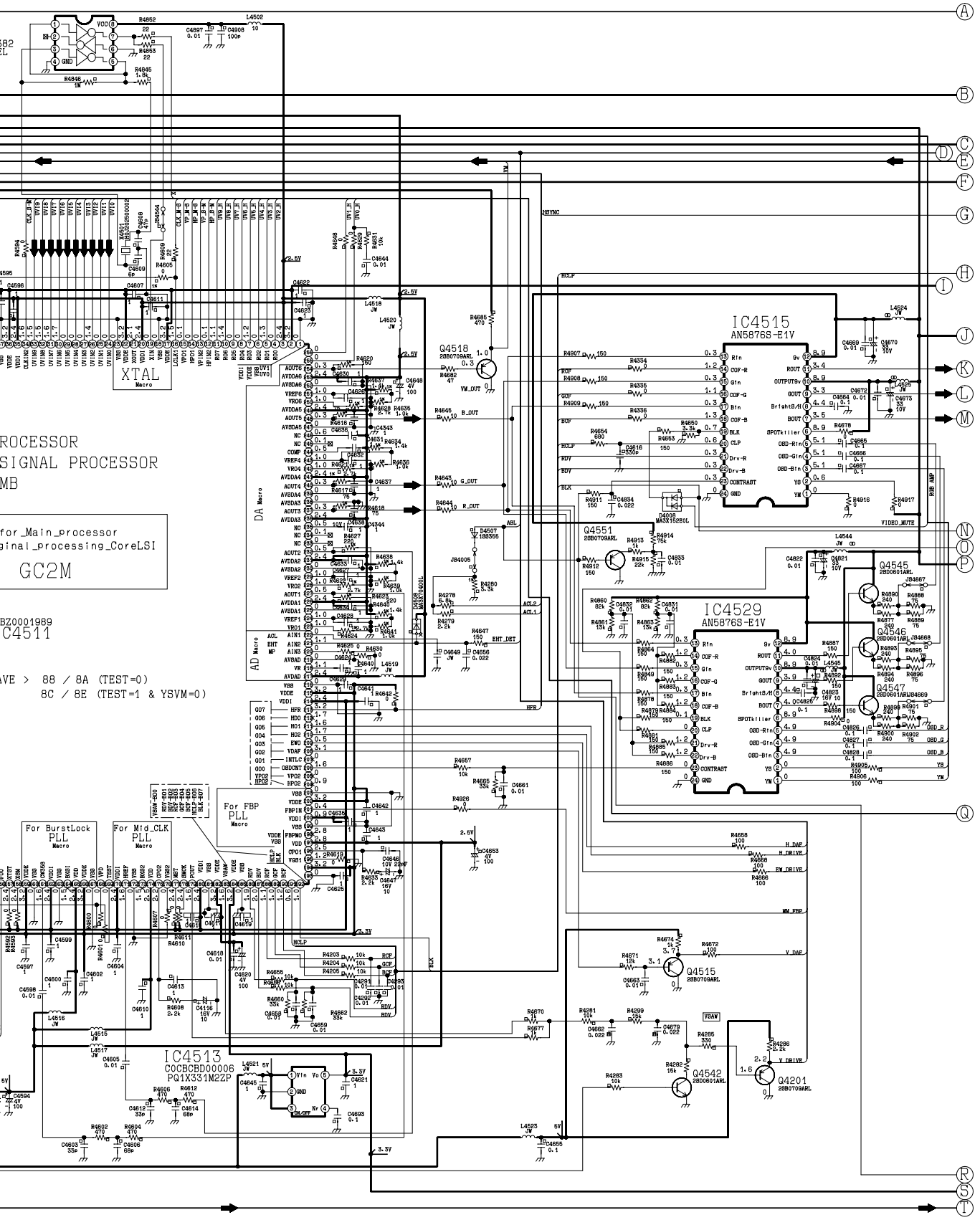
CT-34WX52/CT-30WX52 DG-Board (1 of 3) Schematic Diagram

11.7. DG-Board (2 of 3) Schematic Diagram



CT-34WX52/CT-30WX52 DG-Board (2 of 3) Schematic Diagram

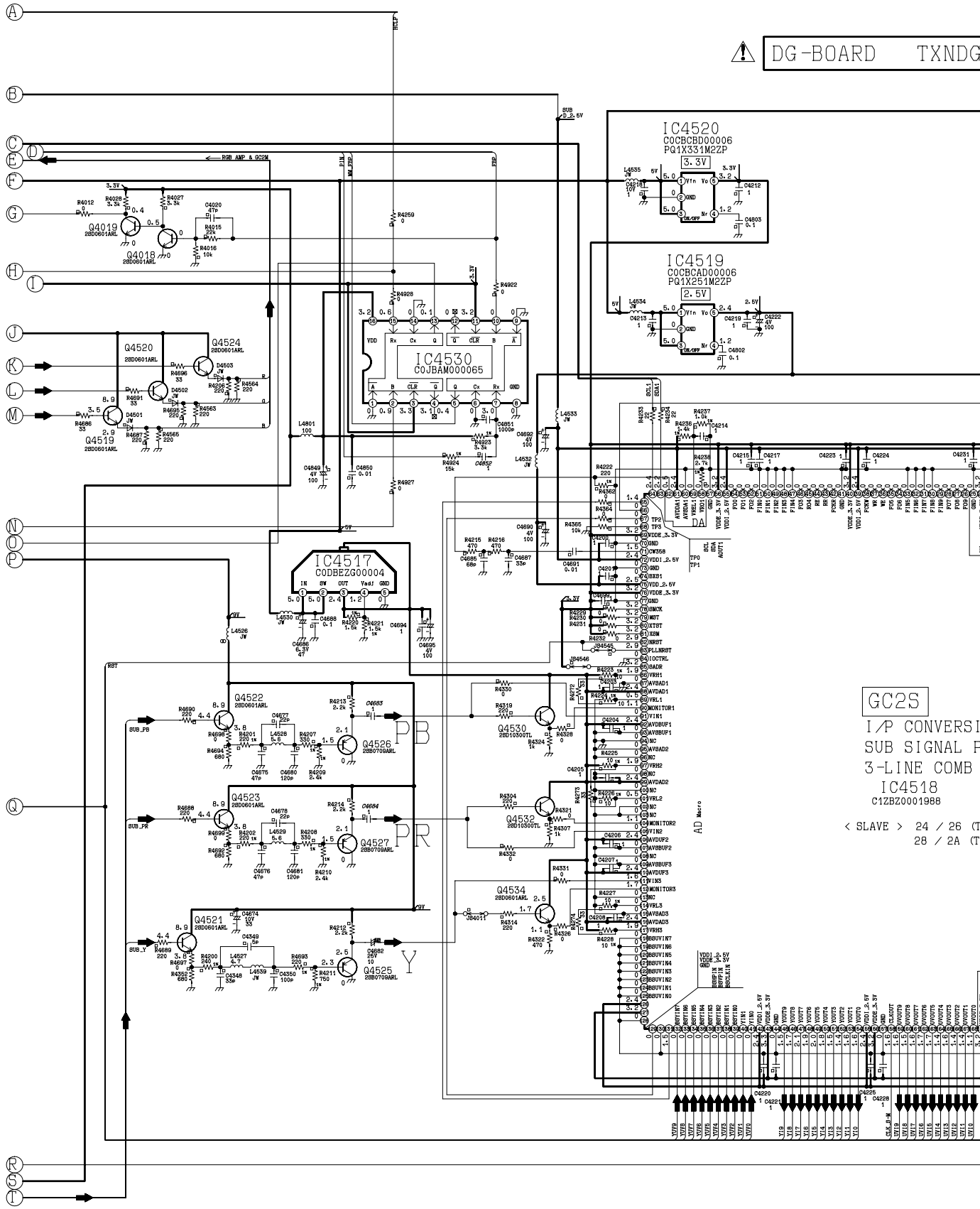
9 10 11 12 13



CT-34WX52/CT-30WX52 DG-Board (2 of 3) Schematic Diagram

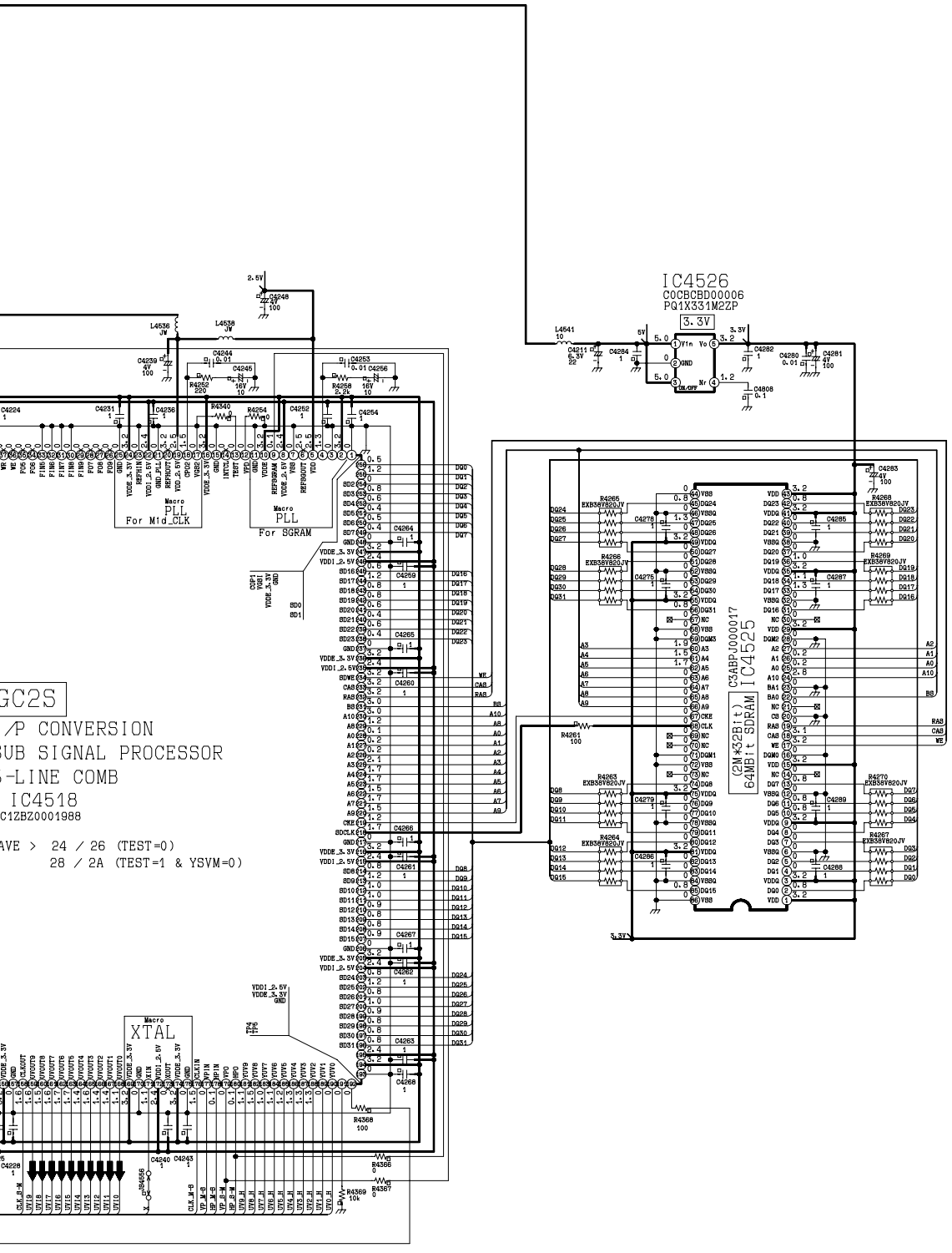
13 14 15 16 17

11.8. DG-Board (3 of 3) Schematic Diagram

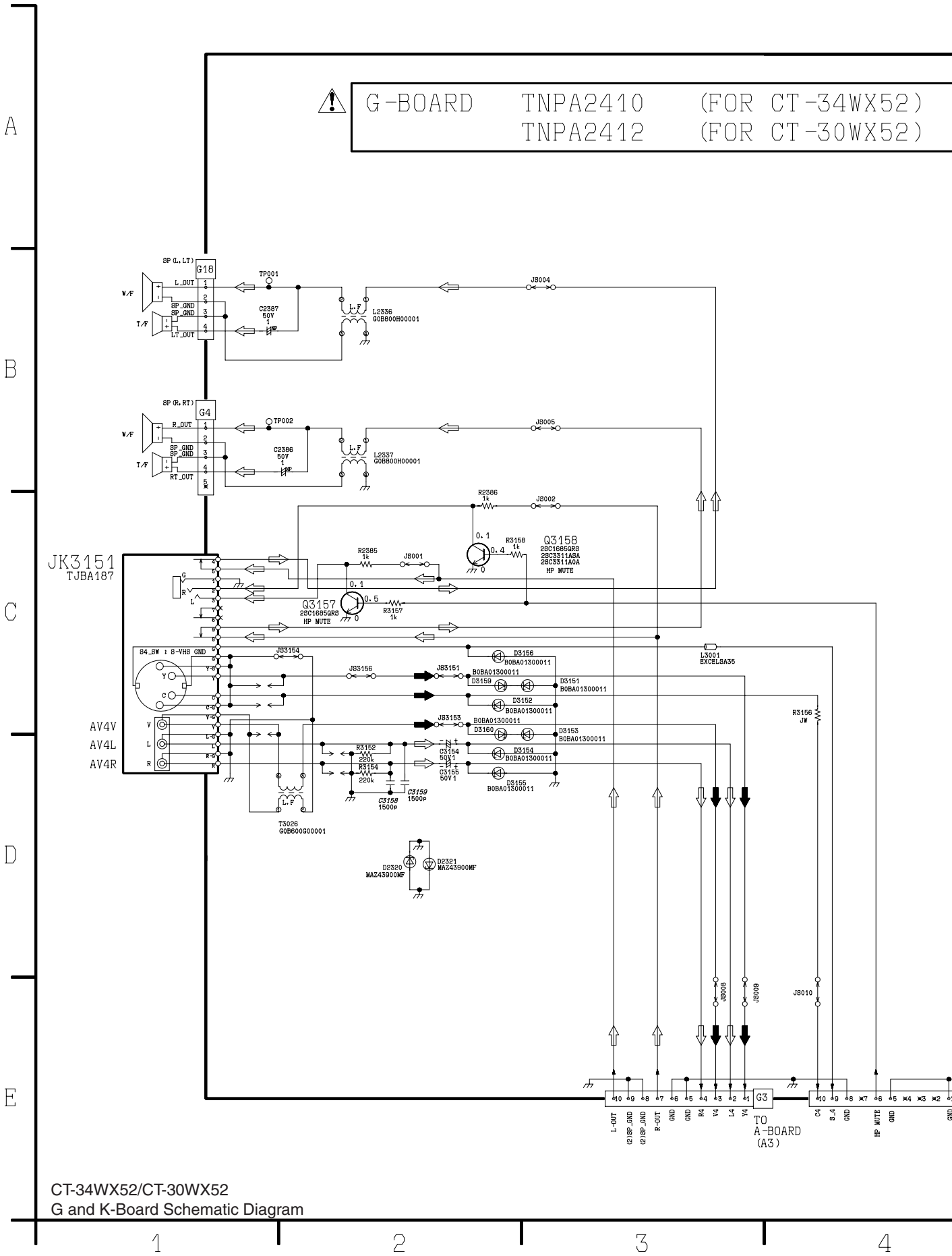


CT-34WX52/CT-30WX52 DG-Board (3 of 3) Schematic Diagram

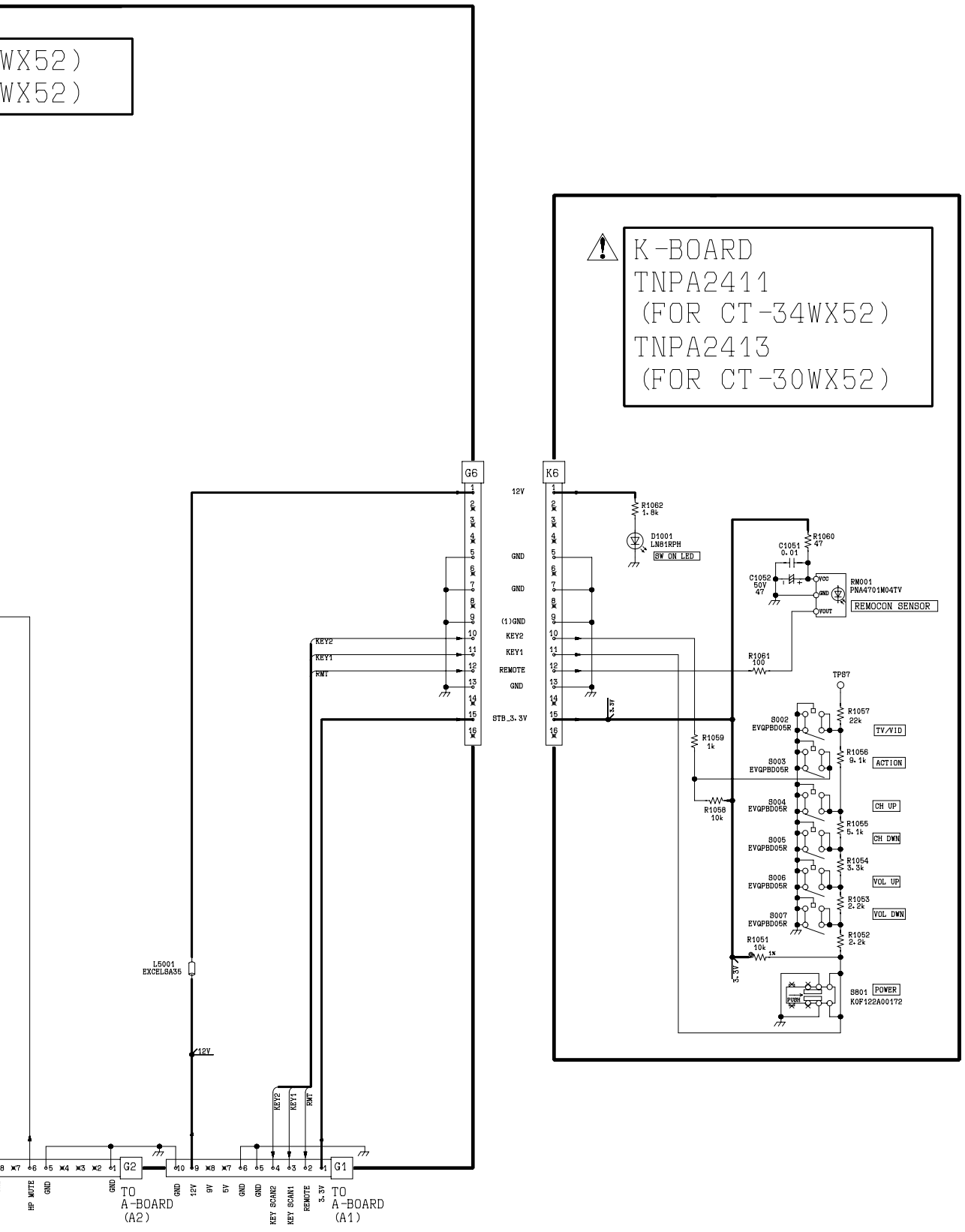
TXNDG10GCR (3/3)



11.9. G and K-Board Schematic Diagram



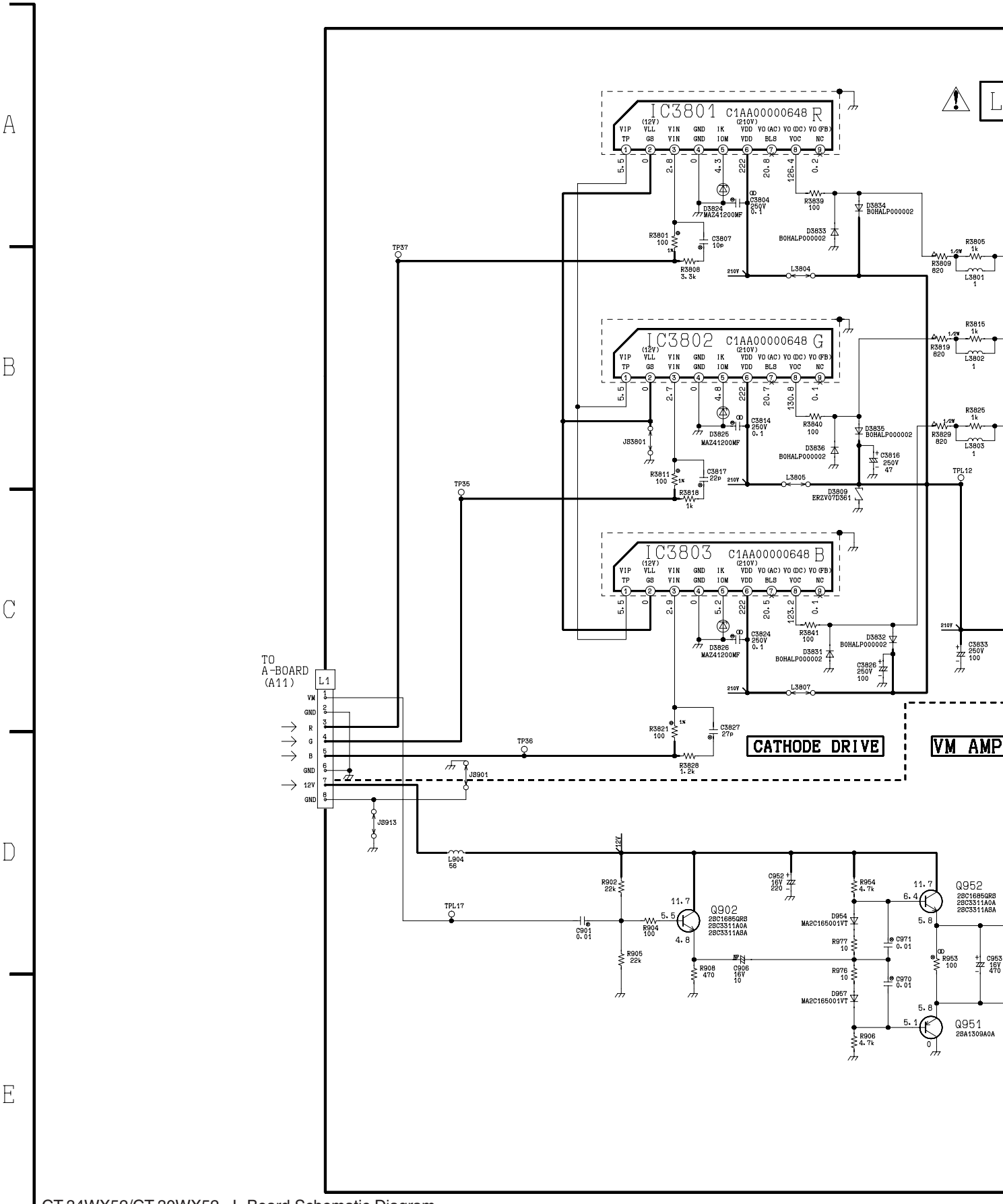
CT-34WX52/CT-30WX52
G and K-Board Schematic Diagram



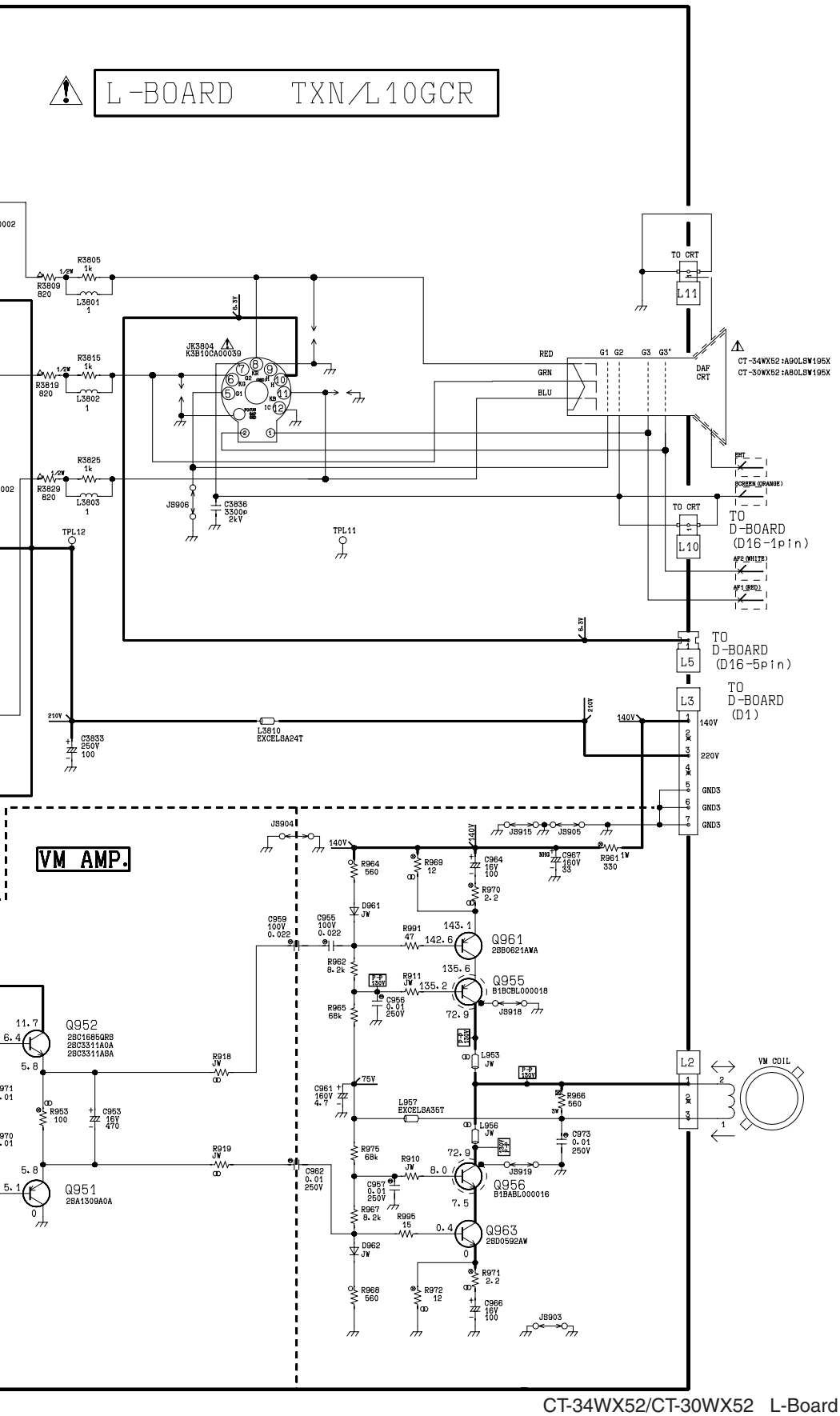
CT-34WX52/CT-30WX52
G and K-Board Schematic Diagram

4 5 6 7

11.10. L-Board Schematic Diagram



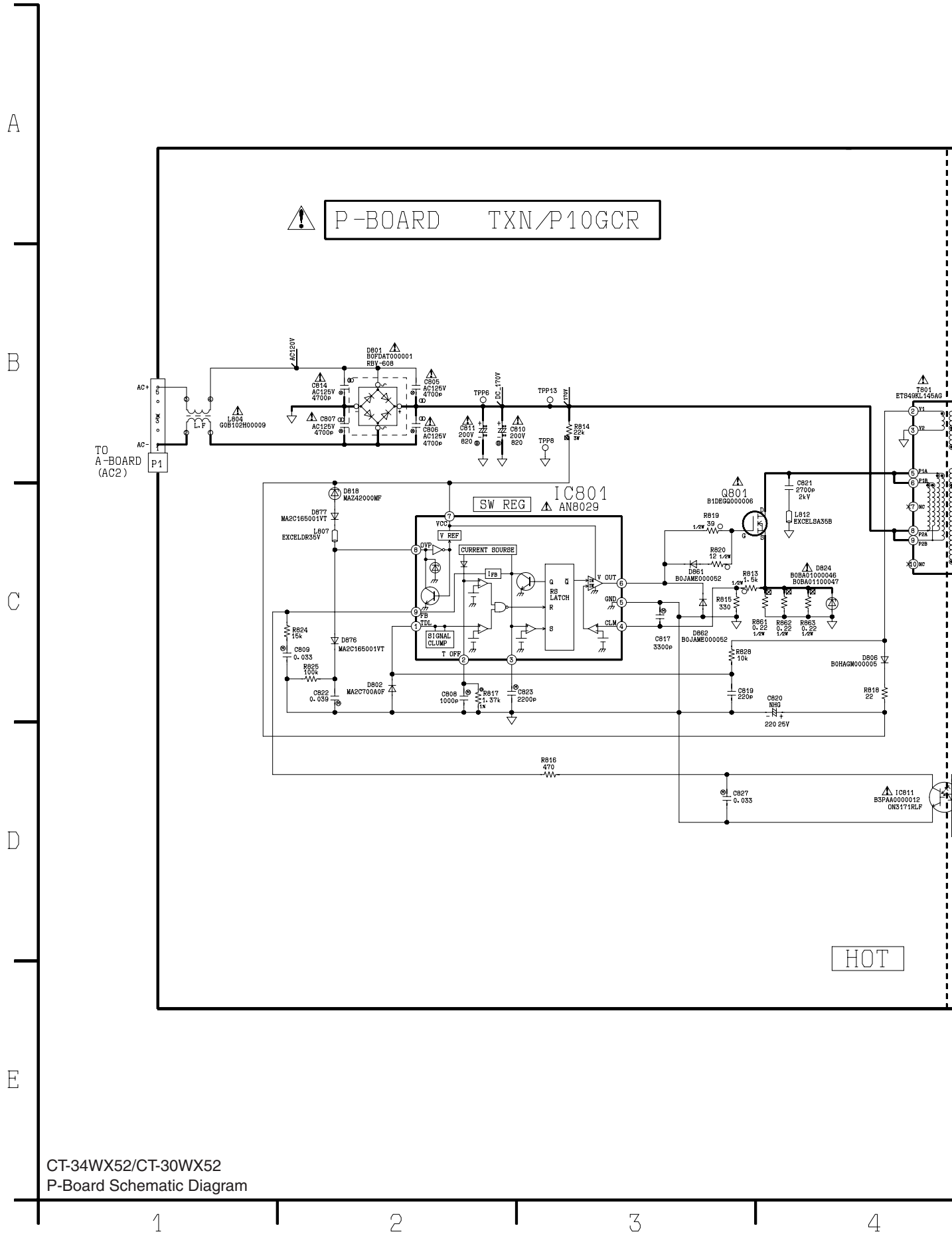
CT-34WX52/CT-30WX52 L-Board Schematic Diagram



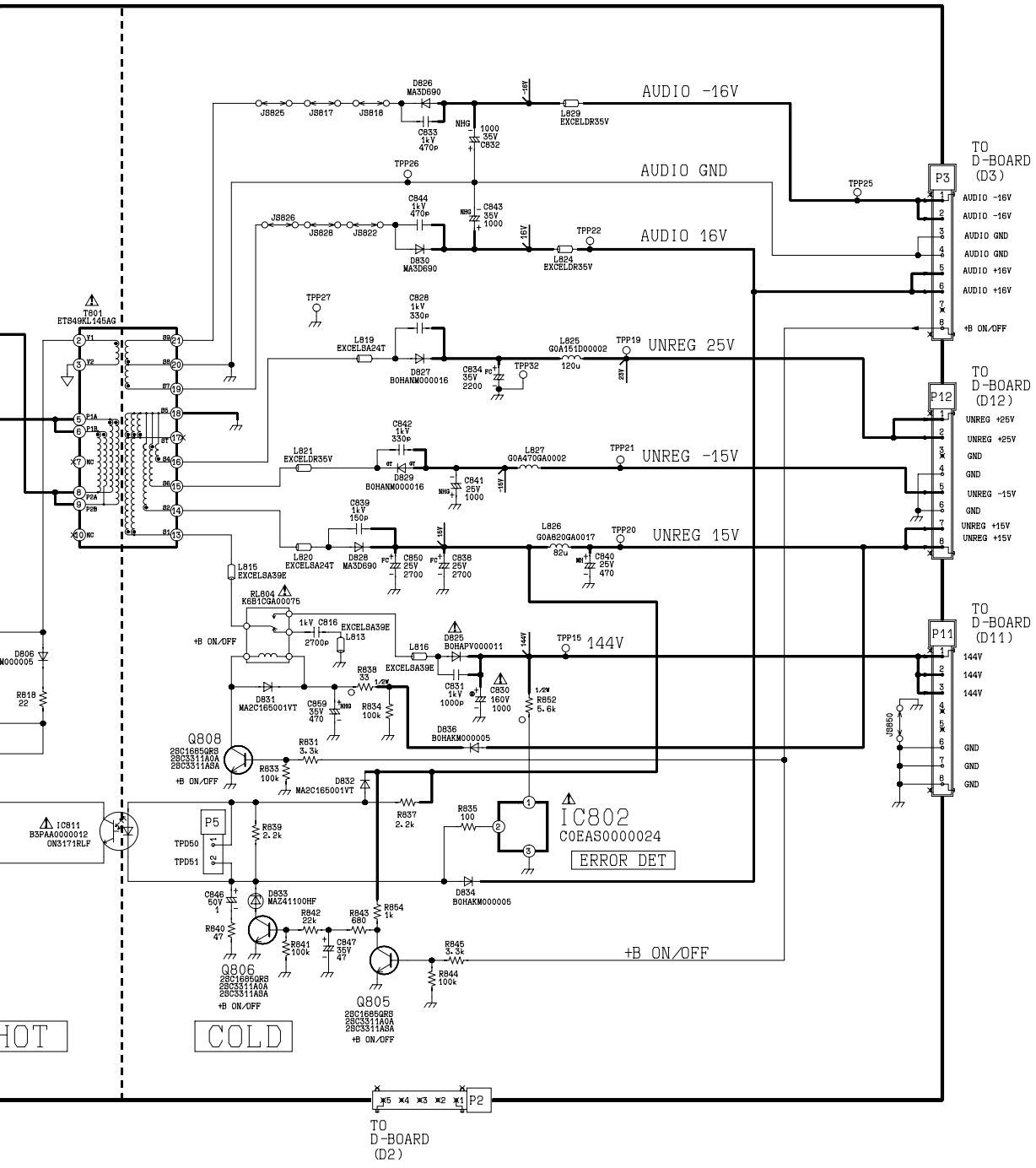
CT-34WX52/CT-30WX52 L-Board Schematic Diagram

5 6 7

11.11. P-Board Schematic Diagram



CT-34WX52/CT-30WX52
P-Board Schematic Diagram



CT-34WX52/CT-30WX52
P-Board Schematic Diagram

4 5 6 7

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